AIR/WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

AIR / WATER CHILLERS AND HEAT PUMPS

			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	ANKI 020-080	Reversible heat pumps inverter	-	5,8-24,8	6,1-20,8	336
	HMI	Reversible air/water heat pump	-	3,0-14,5	4,0-15,5	342
	BHP	Air/Water split type reversible heat pump	-	3,2-11,5	4,0-16,0	348
new	**HMG** **HMG_P**	Reversible air/water heat pump	- -	32-60 33-60	35-65 36-65	360
	ANLI	Reversible heat pumps inverter	-	29,0-42,3	31,4-33,3	368
	ANK 020-150	Reversible air/water heat pump optimised for use in heating mode	-	6,8-39,8	8,0-35,3	374
	SWP	High temperature air cooled heat pumps for production of DHW	-	-	1,9	381
new	**MIC**	Air-water chiller	-	3	-	384
	ANL 021-202	Air-water chiller	-	5,7-43,3	-	389
	ANL 021H-203H	Reversible air/water heat pump	-	5,7-49,1	6,2-43,3	395
	NRK 0090-0150	Reversible air/water heat pump optimised for use in heating mode	-	18,4-31,0	20,8-34,4	406
	NRK 0200-0700	Reversible air/water heat pump optimised for use in heating mode	-	35,5-148,0	42,3-175,0	410
	NRV 0550	Air-water chiller	-	108,3	-	416
	NRB 0282-0754	Air-water chiller	-	56-202	-	421
	NRB 0282H-0754H	Reversible air/water heat pump		52-261	57-193	431
	NRG 0282-0804	Air-water chiller	-	55,8-224,6	-	439
	NRG 0282H-0804H	Reversible air/water heat pump	-	52,5-212,0	56,6-214,4	448
	NRGI 151-602	Air-water chiller	-	31,0-132,2	-	456
	NRGI 151H-602H	Reversible air/water heat pump	-	28,9-123,7	31,6-133,9	461
	NRL 0280-0350	Air-water chiller	-	56,0-82,0	-	467
	NRL 0280H-0350H	Reversible air/water heat pump	-	51,0-76,0	58,0-86,0	472
	NRG 0800-2400	Air-water chiller	-	225,7-725,0	-	477
	NRG 0800H-3600H	Reversible air/water heat pump	-	194,9-962,3	209,6-991,9	486
	NRB 0800-2406	Air-water chiller (plate heat exchanger)	-	216,9-716,9	-	495
	NRB 0800-2406 Q	Air-water chiller (shell and tube heat exchanger)	-	216,9-716,9	-	504
	NRB 0800H-2406H	Reversible air/water heat pump (plate heat exchanger)	-	196,4-647,7	209,8-683,9	513
	NRB 0800W-2406W	Reversible air/water heat pump (shell and tube heat exchanger)	-	196,4-647,7	209,8-683,9	522
	CL 025-200	Air-water chiller with Plug Fan	-	5,8-41,0	-	530
	CL 025H-200H	Reversible air/water heat pump with Plug Fan	-	6,5-50,9	7,7-44,8	535
	NLC 0280-1250	Air-water chiller with Plug Fan	-	53-322	-	541
	NLC 0280H-1250H	Reversible air/water heat pump with Plug Fan	-	53-322	55-342	548
	Units with screw compressors					
	NSM 1402-9603	Air-water chiller	-	302-2100	-	553
	NSMI 1251-6102	Chiller with Inverter screw compressors	-	285,6-1342,6	-	567
	NSH	Reversible air/water heat pump	-	251-731	281-786	571
	NSG	Air-water chiller (with R1234ze)	-	228-1580	-	577
	Units with centrifugal compressors					
	TBA 1300-4325	Air-water chiller	-	328-1404	-	589
	TBG 1230-4310	Air-water chiller	-	200-1165	-	594

ANKI 020-080

Reversible air/water heat pump

Cooling capacity 5,8 ÷ 24,8 kW – Heating capacity 6,1 ÷ 20,8 kW

- **Production of hot water up to 60 °C**
- **Production of hot domestic water with outside temperatures from –20 °C up to 42 °C**
- **Quick & easy installation**

DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
All the units are equipped with inverter scroll compressors, axial fans, external coils with aluminium louvers, a plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
X With inverter pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Version with Integrated hydronic kit

If a plug&play solution is required, there's also a version with an integrated hydronic unit containing the main hydraulic components including the water filter (supplied).

The water filter must be installed to validate the warranty.

CONTROL PCO

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

ACCESSORIES

AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
MOD485K: RS-485 simplified interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PGD1: Allows you to control the unit at a distance.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BDX: Condensate drip.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES

KR: Anti-freeze electric heater for the plate heat exchanger.
KRB: Electric anti-freeze resistance kit for base.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	020	025	040	045	070	075	080
AERLINK	°,X	•	•	•	•	•	•	•
MOD485K	°,X	•	•	•	•	•	•	•
MULTICONTROL	°,X	•	•	•	•	•	•	•
PGD1	°,X	•	•	•	•	•	•	•
PR3	°,X	•	•	•	•	•	•	•
SAF (1)	°,X	•	•	•	•	•	•	•
SDHW (2)	°,X	•	•	•	•	•	•	•
SGD	°,X	•	•	•	•	•	•	•
SPLW (3)	°,X	•	•	•	•	•	•	•

(1) For more information about SAF refer to the dedicated documentation.
(2) Probe required for MULTICONTROL for managing the domestic hot water system.
(3) Probe required for MULTICONTROL to manage the secondary circuit system.

Condensation control temperature

Ver	020	025	040	045	070	075	080
°,X	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71

Antivibration

Ver	020	025	040	045	070	075	080
°,X	VT9	VT9	VT9	VT9	VT9	VT9	VT9

Condensate drip

Ver	020	025	040	045	070	075	080
°,X	BDX30	BDX30	BDX30	BDX30	BDX50	BDX50	BDX50

Heater exchanger

Ver	020	025	040	045	070	075	080
°,X	KR2	KR2	KR2	KR2	KR2	KR2	KR2

A grey background indicates the accessory must be assembled in the factory

Electric heater kit for the base

Ver	020	025	040	045	070	075	080
°,X	KRB1	KRB1	KRB1	KRB1	KRB2	KRB2	KRB2

CONFIGURATOR

Field		Description
1,2,3,4		**ANKI**
5,6,7		**Size** 020, 025, 040, 045, 070, 075, 080
8		**Model**
	H	Heat pump
9		**Version**
	°	Standard
	X	With inverter pump
10		**Heat recovery**
	°	Without heat recovery
11		**Coils**
	°	Copper-aluminium
	V	Copper pieps-Coated aluminium fins
12		**Fans**
	°	Standard
	F	Phase cut
	J	Inverter
13		**Operating field**
	°	Electronic thermostatic expansion valve
14		**Evaporator**
	°	Standard - PED
15		**Power supply**
	M	230V ~ 50Hz (1)
	T	400V ~ 3N 50Hz (2)
16		**Field for future development**
	°	Future developments

(1) For sizes from 020 ÷ 045
(2) For sizes from 070 ÷ 080

PERFORMANCE SPECIFICATIONS

Version without pump

ANKI - 230V-1-50Hz

Size		020	025	040	045
Power supply: M					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	5,8	7,3	9,4	11,8
Input power	kW	2,0	2,6	3,2	4,2
Cooling total input current	A	8,3	11,0	14,0	18,0
EER	W/W	2,98	2,80	2,98	2,79
Water flow rate system side	l/h	1005	1256	1613	2024
Pressure drop system side	kPa	16	22	13	19
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	6,2	7,7	9,3	12,3
Input power	kW	1,9	2,4	3,0	4,0
Heating total input current	A	8,2	10,0	13,0	18,0
COP	W/W	3,26	3,22	3,08	3,03
Water flow rate system side	l/h	1077	1345	1619	2131
Pressure drop system side	kPa	14	21	10	17
Power supply					
Power supply		230-1-50	230-1-50	230-1-50	230-1-50

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANKI - 400V-3N-50Hz

Size		070	075	080
Power supply: T				
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	13,7	16,4	18,6
Input power	kW	4,8	6,2	7,6
Cooling total input current	A	7,3	9,4	11,0
EER	W/W	2,85	2,67	2,44
Water flow rate system side	l/h	2354	2818	3196
Pressure drop system side	kPa	17	25	31
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	15,3	17,7	20,2
Input power	kW	4,8	6,0	7,1
Heating total input current	A	7,3	9,1	11,0
COP	W/W	3,21	2,97	2,83
Water flow rate system side	l/h	2660	3072	3507
Pressure drop system side	kPa	17	23	30
Power supply				
Power supply		400-3N-50	400-3N-50	400-3N-50

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Version with pump

ANKI - 230V-1-50Hz

Size		020	025	040	045
Power supply: M					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	5,8	7,3	9,4	11,8
Input power	kW	2,0	2,7	3,2	4,3
Cooling total input current	A	8,9	12,0	14,0	19,0
EER	W/W	2,88	2,72	2,90	2,73
Water flow rate system side	l/h	1005	1256	1613	2024
Useful head system side	kPa	75	68	73	60
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	6,2	7,7	9,3	12,3
Input power	kW	2,0	2,5	3,1	4,1
Heating total input current	A	8,7	11,0	14,0	18,0
COP	W/W	3,14	3,11	3,00	2,96
Water flow rate system side	l/h	1077	1345	1619	2131
Useful head system side	kPa	76	67	74	59
Power supply					
Power supply		230-1-50	230-1-50	230-1-50	230-1-50

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANKI - 400V-3N-50Hz

Size		070	075	080
Power supply: T				
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	13,8	16,5	18,7
Input power	kW	4,8	6,2	7,7
Cooling total input current	A	8,3	10,0	12,0
EER	W/W	2,88	2,68	2,44
Water flow rate system side	l/h	2354	2818	3196
Useful head system side	kPa	82	62	43
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	15,2	17,6	20,1
Input power	kW	4,8	6,0	7,2
Heating total input current	A	8,3	10,0	12,0
COP	W/W	3,19	2,95	2,80
Water flow rate system side	l/h	2660	3072	3507
Useful head system side	kPa	73	55	33
Power supply				
Power supply		400-3N-50	400-3N-50	400-3N-50

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			020	025	040	045
Power supply: M						
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)						
Efficiency energy class	°		A+	A+	A+	A+
	X		A++	A++	A+	A+
Pdesignh	°,X	kW	6,00	7,00	9,00	12,00
ηsh	°	%	140,00	139,00	133,00	125,00
	X	%	150,00	150,00	141,00	131,00
SCOP	°	W/W	3,58	3,55	3,40	3,20
	X	W/W	3,83	3,83	3,60	3,35
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)						
Efficiency energy class	°,X		A+	A+	-	-
Pdesignh	°	kW	6,00	7,00	-	-
	X	kW	5,00	7,00	-	-
ηsh	°	%	112,00	113,00	-	-
	X	%	113,00	115,00	-	-
SCOP	°	W/W	2,88	2,90	-	-
	X	W/W	2,90	2,95	-	-
SEER - 12/7 (EN14825: 2018) (3)						
SEER	°	W/W	3,50	3,54	3,76	3,77
	X	W/W	4,12	4,25	4,38	4,37
Seasonal efficiency	°	%	137,10	138,40	147,30	147,70
	X	%	161,70	167,00	172,30	171,90

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)
(3) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

Size			070	075	080
Power supply: T					
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)					
Efficiency energy class	°,X		A+	A+	A+
Pdesignh	°	kW	14,00	17,00	19,00
	X	kW	14,00	16,00	19,00
ηsh	°	%	137,00	130,00	129,00
	X	%	141,00	134,00	133,00
SCOP	°	W/W	3,50	3,33	3,30
	X	W/W	3,50	3,43	3,40
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)					
Efficiency energy class	°,X		A+	A+	A+
Pdesignh	°	kW	14,00	16,00	19,00
	X	kW	13,00	16,00	18,00
ηsh	°	%	113,00	112,00	110,00
	X	%	112,00	112,00	110,00
SCOP	°	W/W	2,90	2,88	2,83
	X	W/W	2,88	2,88	2,83
SEER - 12/7 (EN14825: 2018) (3)					
SEER	°	W/W	3,49	3,47	3,44
	X	W/W	3,78	3,81	3,77
Seasonal efficiency	°	%	136,70	135,60	134,40
	X	%	148,00	149,40	147,80

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)
(3) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

ELECTRIC DATA

Size			020	025	040	045	070	075	080
Electric data									
Maximum current (FLA)	°	A	12,1	14,1	20,0	23,6	12,5	13,5	15,0
	X	A	12,9	14,9	20,8	24,4	13,6	14,6	16,1
Peak current (LRA)	°	A	8,0	8,0	10,0	10,0	15,0	15,0	15,0
	X	A	8,8	8,8	10,8	10,8	16,1	16,1	16,1
Power supply									
Power supply	°,X		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz

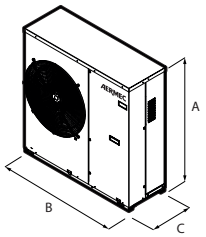
GENERAL TECHNICAL DATA

Size			020	025	040	045	070	075	080
Compressor									
Type	°,X	type	Rotary	Rotary	Rotary	Rotary	Scroll	Scroll	Scroll
Compressor regulation	°,X	Type				Inverter			
Number	°,X	no.	1	1	1	1	1	1	1
Circuits	°,X	no.	1	1	1	1	1	1	1
Refrigerant	°,X	type				R410A			
Refrigerant charge (1)	°,X	kg	1,4	1,4	2,3	2,3	3,5	3,5	3,5
System side heat exchanger									
Type	°,X	type				Brazed plate			
Number	°,X	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°,X	Type				Gas-M			
Size (in)	°,X	Ø				1"			
Size (out)	°,X	Ø				1"			
Fan									
Type	°,X	type				Axial			
Fan motor	°,X	type				Asynchronous			
Number	°,X	no.	1	1	2	2	2	2	2
Air flow rate	°,X	m^3/h	3590	3590	7480	7480	7400	7400	7400
Sound data calculated in cooling mode (2)									
Sound power level	°,X	dB(A)	64,0	65,4	66,7	67,7	67,7	69,0	69,0
Sound pressure level (10 m)	°,X	dB(A)	32,7	34,1	35,4	36,3	36,3	37,6	37,6

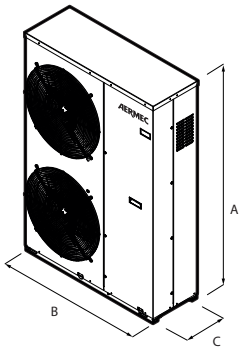
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

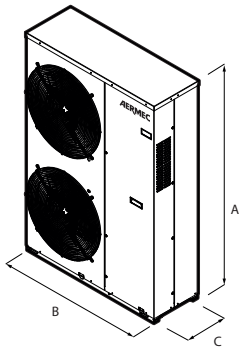
ANKI020
ANKI025



ANKI040
ANKI045



ANKI070
ANKI075
ANKI080



Size			020	025	040	045	070	075	080
Dimensions and weights									
A	°,X	mm	1028	1028	1481	1481	1481	1481	1481
B	°,X	mm	1000	1000	1000	1000	1000	1000	1000
C	°,X	mm	346	346	346	346	450	450	450
Empty weight	°	kg	80	80	113	113	174	174	174
	X	kg	82	82	115	115	178	178	178

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HMI

Reversible air/water heat pump

Cooling capacity 3,0 ÷ 14,5 kW – Heating capacity 4,0 ÷ 15,5 kW

- **New R32 ecological refrigerant gas**
- **Production of hot water up to 60 °C**
- **Production of hot domestic water with external temperatures from -25 °C to 48 °C**
- **Quick & easy installation**

DESCRIPTION

Reversible outdoor heat pump for air-conditioning systems where, in addition to cooling rooms, high-temperature hot water is required for heating or for the production of domestic hot water. **For the production of DHW it is mandatory to combine it with the Aermec compatible domestic hot water storage tank.**

HMI is designed to meet the needs of both the new constructions market and the renovation market, **replacing or working alongside conventional boilers**.

It can be combined with low-temperature emission systems such as floor heating or fan coils, and also with more traditional radiators, **and comes supplied with the main hydraulic components needed, thereby facilitating the final installation**.

FEATURES

Operating limits

Working at full load up to -25 °C outside air temperature in winter, and up to 48 °C in summer. Maximum temperature of water produced in heating mode 60 °C.

— Refrigerant circuit with economizer.
— DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Electronic expansion valve.

Main hydraulic components

— Inverter pump.
— Plate heat exchanger.
— Expansion tank
— Safety valve.
— Flow switch.
— Water filter supplied **(mandatory installation)**.

Regulation

Adjustment via **a multi-language touch-screen control panel:**

— Management of a 3 way diverting valve (not supplied) for the production of domestic hot water.
— Management of a 2 way valve (not supplied) for shutting off part of the system.
— Weekly programming in time periods.
— **Auto-restart** function.
— Emergency operation (a supplementary heat source may be activated).
— **Quick hot water** function, for quickly heating domestic hot water.
— **Weather dependent mode** function for climate control.
— **Quiet** function for reduced noise operation (programmable with a timer).
— Condensation check
— When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.

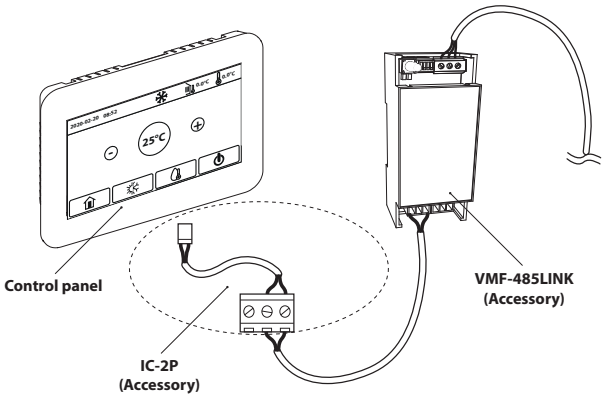
Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

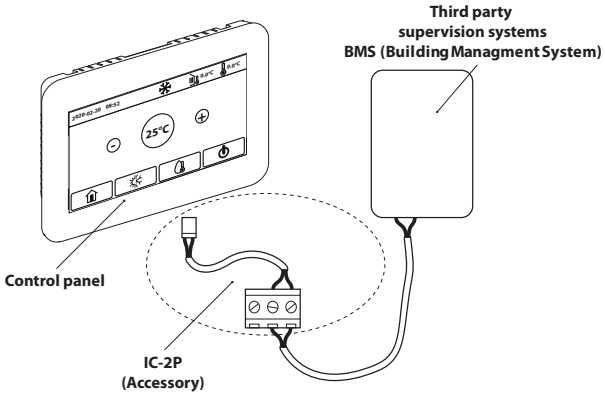
ACCESSORIES

Aermec compatible DHW storage tank.
HMICB15: Connection cable for the control panel. Cable length 15m.
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.
LOGATW: Diagnostic tool for air-water heat pumps.
For more information about VMF system, refer to the dedicated documentation.

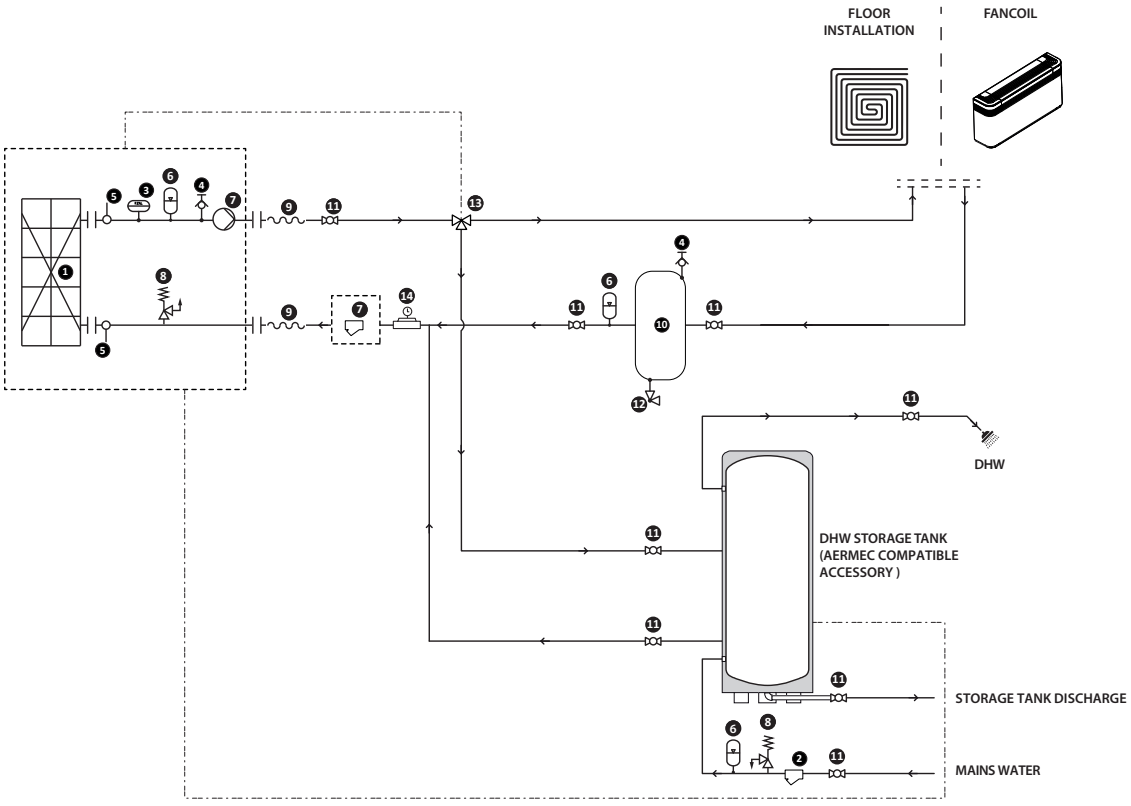
Connection with VMF-485LINK



Connection with third party supervision systems



FLOOR SYSTEM + DHW



COMPONENTS AS STANDARD

1 Plate heat exchanger
2 Water filter (as standard)
3 Flow switch
4 Air drain valve
5 Water temperature sensor (IN/OUT)
6 Expansion vessel
7 Pump
8 Pressure relief valve

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

4 Air drain valve
9 Anti-vibration joints
10 System storage tank (recommended installation if the system water content is lower than that indicated in the technical manual).
11 Flow shut-off valves
6 Expansion vessel
12 Drain valve
13 3 way valve
14 Loading unit

PERFORMANCE SPECIFICATIONS

EUROVENT TECHNICAL DATA EN 14511:2013

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 12 °C / 7 °C - EN 14511:2013 (1)												
Cooling capacity	kW	3,00	4,00	5,00	7,80	7,80	9,50	9,50	12,00	12,00	13,00	13,00
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Input current	A	4,3	5,9	7,7	11,4	4,0	14,7	4,7	19,0	6,7	22,7	7,5
EER	W/W	3,19	3,10	3,11	3,15	2,95	2,97	3,05	2,90	2,74	2,62	2,65
Water flow rate	l/h	516	672	860	1320	1270	1650	1665	2080	2065	2270	2231
Useful head	kPa	75,0	74,0	74,0	71,0	71,0	65,0	64,0	51,0	51,0	45,0	46,0
Heating performance 40 °C / 45 °C - EN 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Input current	A	4,6	7,2	9,2	12,4	4,1	15,9	5,3	19,1	6,4	21,5	7,1
COP	W/W	4,00	3,80	3,75	3,70	3,70	3,45	3,45	3,35	3,35	3,30	3,30
Water flow rate	l/h	690	977	1240	1700	1710	2050	2040	2500	2474	2700	2734
Useful head	kPa	74,0	73,0	72,0	63,0	63,0	52,0	52,0	37,0	38,0	30,0	29,0

(1) Data EN 14511:2013; System side water heat exchanger 12 °C / 7 °C; External air 35 °C
(2) Data EN 14511:2013; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 23 °C / 18 °C - EN 14511:2013 (1)												
Cooling capacity	kW	3,80	5,80	6,80	8,80	8,80	11,00	11,00	12,50	12,50	14,50	14,50
Input power	kW	0,82	1,32	1,55	1,96	1,96	2,56	2,56	3,05	3,05	3,82	3,82
Input current	A	3,8	6,0	7,1	9,0	3,0	11,7	3,9	14,0	4,6	17,5	5,8
EER	W/W	4,63	4,39	4,39	4,49	4,49	4,30	4,30	4,10	4,10	3,80	3,80
Water flow rate	l/h	660	981	1220	1510	1500	1926	1900	2238	2200	2640	2570
Useful head	kPa	74,0	73,0	72,0	69,0	69,0	56,0	57,0	46,0	47,0	32,0	34,0
Heating performance 30 °C / 35 °C - EN 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	0,79	1,20	1,63	2,17	2,17	2,64	2,64	3,22	3,22	3,60	3,60
Input current	A	3,6	5,5	7,5	9,9	3,3	12,1	4,0	14,7	4,9	16,5	5,5
COP	W/W	5,10	5,00	4,60	4,61	4,61	4,55	4,55	4,35	4,35	4,31	4,31
Water flow rate	l/h	690	1030	1247	1736	1720	2137	2100	2524	2400	2703	2626
Useful head	kPa	74,0	73,0	72,0	62,0	62,0	49,0	50,0	36,0	40,0	30,0	32,0

(1) Data EN 14511:2013; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2013; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

EUROVENT TECHNICAL DATA EN 14511:2018

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	2,98	3,97	4,96	7,75	7,75	9,45	9,45	11,94	11,94	12,95	12,95
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Input current	A	4,7	6,4	7,9	12,0	4,6	15,0	5,3	20,0	7,3	23,0	8,1
EER	W/W	3,17	3,08	3,08	3,12	2,94	2,95	3,04	2,88	2,73	2,61	2,64
Water flow rate	l/h	504	673	842	1318	1318	1609	1609	2038	2038	2210	2210
Useful head	kPa	74,0	74,0	74,0	69,0	69,0	64,0	64,0	52,0	52,0	47,0	47,0
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	4,03	6,04	7,55	10,06	10,06	12,06	12,06	14,05	14,05	15,54	15,54
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Input current	A	5,1	7,8	9,7	13,0	4,7	17,0	5,9	20,0	6,9	22,0	7,7
COP	W/W	4,03	3,83	3,78	3,72	3,72	3,46	3,46	3,36	3,36	3,31	3,31
Water flow rate	l/h	710	1062	1326	1762	1762	2110	2110	2456	2456	2714	2714
Useful head	kPa	74,0	73,0	71,0	60,0	60,0	50,0	50,0	39,0	39,0	29,0	29,0

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	3,77	5,76	6,75	8,75	8,75	10,94	10,94	12,44	12,44	14,45	14,45
Input power	kW	0,82	1,32	1,55	1,96	1,96	2,56	2,56	3,05	3,05	3,82	3,82
Input current	A	4,2	6,6	7,6	9,5	3,6	12,0	4,5	15,0	5,2	18,0	6,4
EER	W/W	4,60	4,36	4,36	4,46	4,46	4,27	4,27	4,08	4,08	3,78	3,78
Water flow rate	l/h	641	982	1152	1495	1495	1873	1873	2132	2132	2478	2478
Useful head	kPa	74,0	74,0	73,0	66,0	66,0	57,0	57,0	50,0	50,0	38,0	38,0
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	4,03	6,04	7,55	10,06	10,06	12,06	12,06	14,05	14,05	15,54	15,54
Input power	kW	0,79	1,20	1,63	2,17	2,17	2,64	2,64	3,22	3,22	3,60	3,60
Input current	A	4,1	6,0	8,0	11,0	3,9	13,0	4,6	15,0	5,5	17,0	6,1
COP	W/W	5,10	5,04	4,63	4,63	4,63	4,57	4,57	4,36	4,36	4,32	4,32
Water flow rate	l/h	708	1058	1321	1756	1756	2102	2102	2447	2447	2704	2704
Useful head	kPa	74,0	73,0	71,0	60,0	60,0	50,0	50,0	39,0	39,0	30,0	30,0

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)												
Pdesignh	kW	5	5	6	9	9	11	11	11	11	13	13
ηsh	%	185,00	185,00	183,00	176,00	176,00	175,00	175,00	168,00	168,00	164,00	164,00
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A++	A++	A++	A++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)												
Pdesignh	kW	6	6	7	8	8	10	10	11	11	13	13
ηsh	%	126,00	126,00	127,00	128,00	128,00	126,00	126,00	125,00	125,00	125,00	125,00
Efficiency energy class		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++

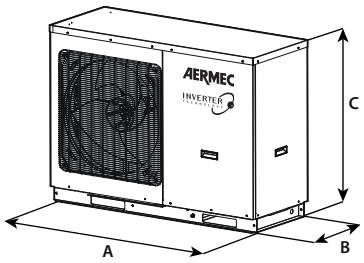
(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

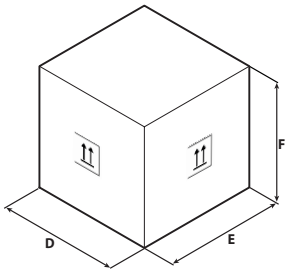
GENERAL TECHNICAL DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Electric data												
Rated current input (1)	A	10,4	10,4	10,4	23,0	12,0	25,0	12,0	29,0	12,0	29,0	12,0
Compressor												
Type	type	Rotary DC Inverter										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type	R32										
Potential global heating	GWP	675 $kgCO_2eq$										
Refrigerant charge (2)	kg	0,9	0,9	0,9	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2
Oil	Type	FW68DA										
Total oil charge	kg	0,5	0,5	0,5	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
System side heat exchanger												
Type	type	Brazed plate										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	Type	Gas Maschio										
Size (in)	Ø	1"										
Size (out)	Ø	1"										
Fan												
Type	type	Axial										
Fan motor	type	Inverter										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Air flow rate	m^3/h	2600	2600	2600	4500	4500	4500	4500	4500	4500	4500	4500
Sound data calculated in cooling mode (3)												
Sound pressure level (1 m)	dB(A)	51,0	52,0	53,0	56,0	56,0	56,0	56,0	57,0	57,0	59,0	59,0
Sound data calculated in heating mode (3)												
Sound power level	dB(A)	64,0	64,0	65,0	69,0	69,0	69,0	69,0	70,0	70,0	72,0	72,0
Sound pressure level (1 m)	dB(A)	50,0	50,0	51,0	54,0	54,0	54,0	54,0	55,0	55,0	57,0	57,0
Power supply												
Power supply		220-240V ~ 50Hz				380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(3) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

DIMENSIONS





Carton Box Example

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Dimensions and weights												
A	mm	1150	1150	1150	1200	1200	1200	1200	1200	1200	1200	1200
B	mm	345	345	345	460	460	460	460	460	460	460	460
C	mm	758	758	758	878	878	878	878	878	878	878	878
D	mm	1260	1260	1260	1295	1295	1295	1295	1295	1295	1295	1295
E	mm	490	490	490	595	595	595	595	595	595	595	595
F	mm	900	900	900	1020	1020	1020	1020	1020	1020	1020	1020
Net weight	kg	96,0	96,0	96,0	151,0	151,0	151,0	151,0	151,0	151,0	151,0	151,0
Weight for transport	kg	109,0	109,0	109,0	166,0	166,0	166,0	166,0	166,0	166,0	166,0	166,0

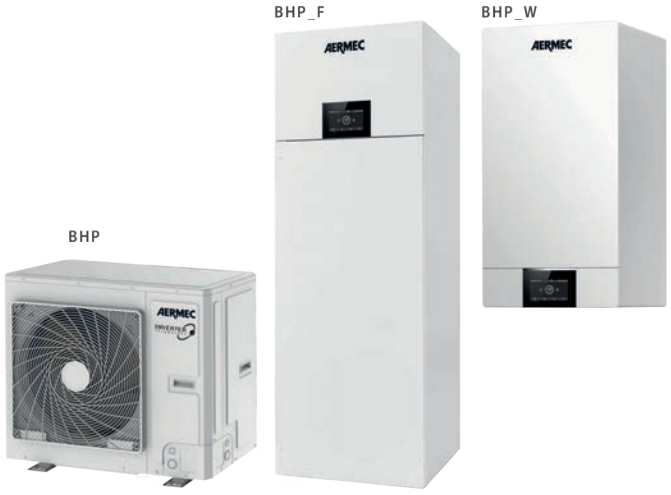
Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

BHP

Reversible air/water split heat pump

Cooling capacity 3,2 ÷ 11,5 kW – Heating capacity 4,0 ÷ 16,0 kW

- **Indoor unit available in two versions, with and without DHW**
- **New R32 ecological refrigerant gas**
- **Production of hot water up to 60 °C**
- **Anti-legionella function**
- **Multi-language touch-screen control panel**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

BHP It's the new "split" type inverter heat pump system, more efficient than standard boiler systems as it guarantees sustainable, efficient heating, cooling and domestic hot water supply in every season.
BHP is designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.
The system can be installed in systems with any hydronic terminal, and is already supplied with the main hydraulic components, thus facilitating final installation.
The indoor unit comes in two versions:

— BHP_W **wall-mounting**, without DHW storage tank but complete with a 3-way DHW-system diverting valve. **For the production of DHW it is mandatory to combine it with a domestic hot water storage tank Aermec compatibile.**
— **BHP_F with base**, complete with DHW storage tank.

FEATURES

Main hydraulic components

BHP outdoor unit

— inverter compressor,
— finned pack heat exchanger with copper pipes and aluminium louvers, with protective golden fin treatment,
— economizer,
— electronic valve,
— DC axial brushless fan,
— electric heater for the base.

BHP_W wall indoor unit

— plate heat exchanger,
— flow switch,
— inverter pump,
— expansion tank,
— drain valve,
— safety valve,
— Electric resistance system side,
— 3 way valve,
— DHW-system connections,
— water filter supplied **(mandatory installation)**.

BHP_F indoor base unit

— plate heat exchanger,
— flow switch,
— inverter pump,
— expansion tank,
— drain valve,
— safety valve,
— Electric resistance system side,
— 3 way valve,
— DHW-system connections,
— water filter supplied **(mandatory installation)**,
— DHW storage tank of 185 litres with coil and supplementary electric heater, and anti-legionella function,
— **tank with Titanium electronic sacrificial anode.**

The indoor and outdoor units are connected by means of suitably sized cooling lines (supplied by the installer).
Cooling circuit use R32 (A2L) refrigerant with low GWP.

Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

Regulations

Adjustment via **multi-language touch-screen control panel**:

— ganagement of a 3-way diverting valve for the production of domestic hot water,
— management of a 2 way valve (not supplied) for shutting off part of the system,
— weekly programming in time periods,
— **auto-restart** function,
— emergency operation,
— function **quick water heating** for a quick heating of domestic hot water
— forced operating **mode**,
— intelligent operation **based on weather conditions** for climate adjustment,
— **quiet** function for reduced noise operation (programmable with a timer),
— **Anti-freeze** function,
— condensation check,

— when the **anti-legionella cycle** is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection,
— pre heating **function of the floor** to pre-heat the floor system before unit commissioning.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.

Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

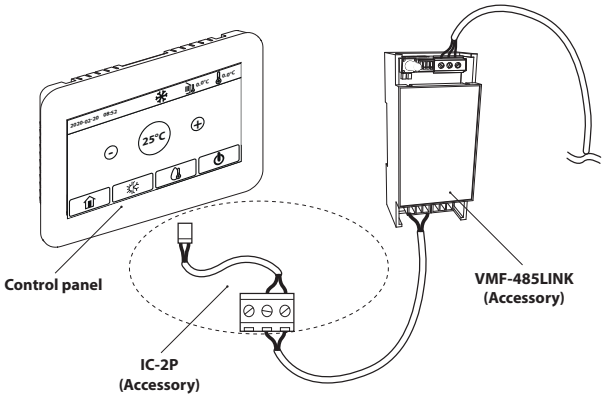
ACCESSORIES

Aermec compatible DHW storage tank. For the production of DHW it is mandatory to combine it with BHP_W.
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.
LOGATW: Diagnostic tool for air-water heat pumps.

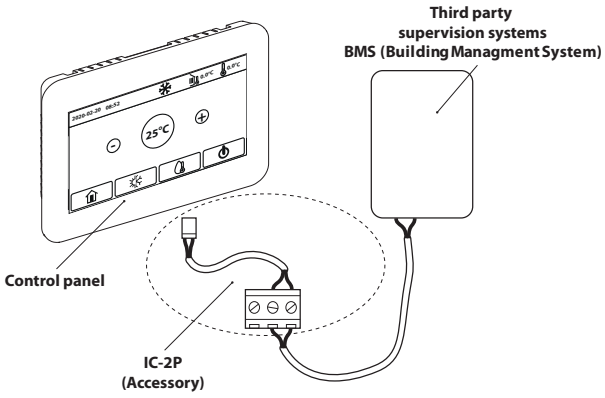
Compatibility with VMF system

For more information about VMF system, refer to the dedicated documentation.

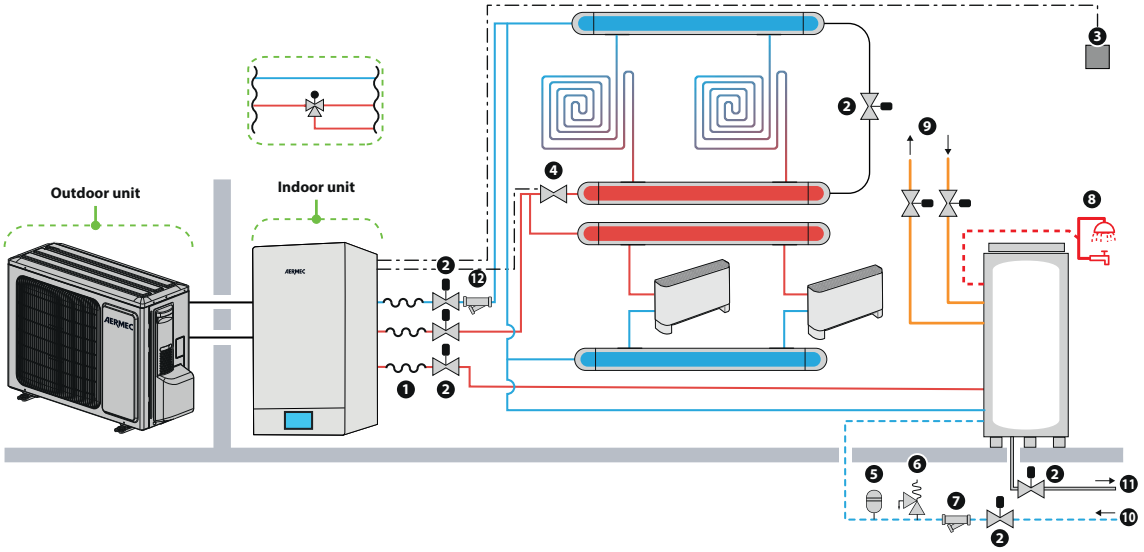
Connection with VMF-485LINK



Connection with third party supervision systems



BHP_W: DOMESTIC HOT WATER STORAGE TANK CONNECTION AND CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

— Plate heat exchanger
— Flow switch
— Inverter circulator
— Expansion vessel
— Drain valve
— Pressure relief valve
— Electric resistance system side
— 3 way valve
— DHW-system connections

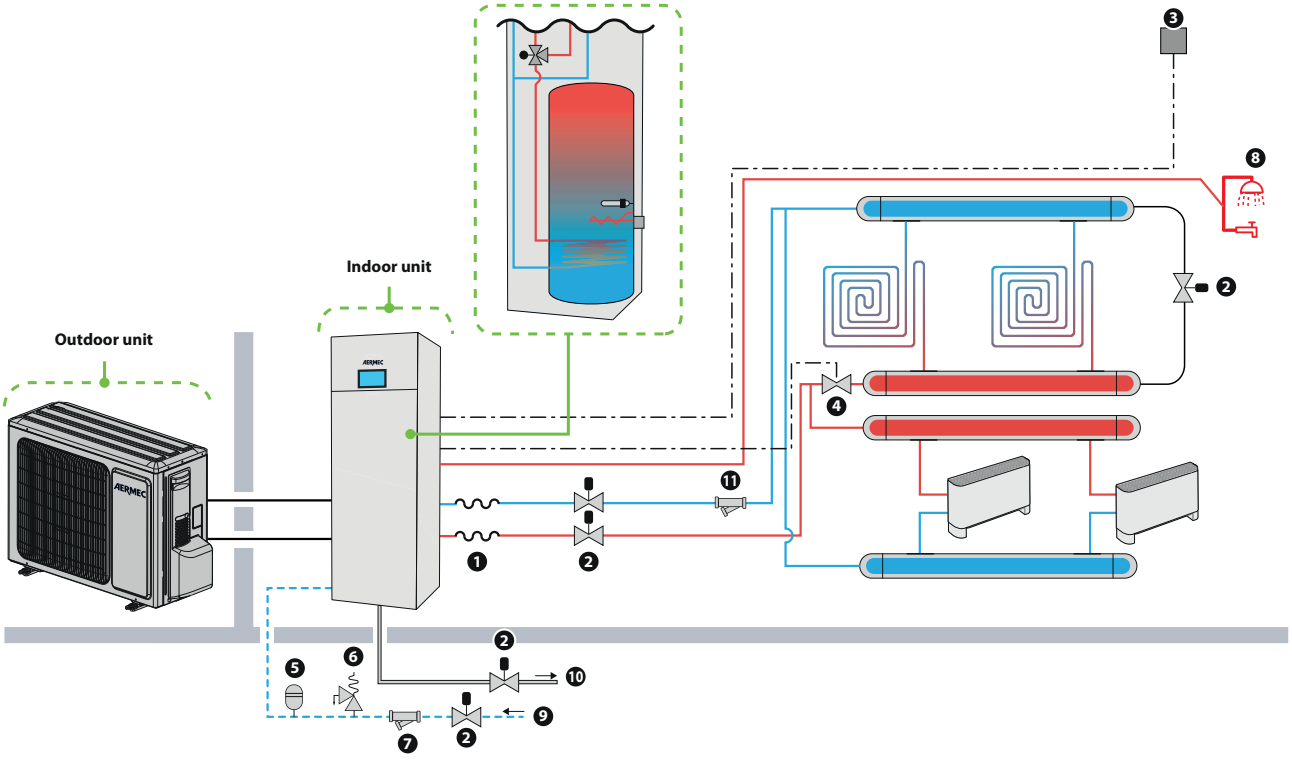
SUPPLIED HYDRAULIC COMPONENTS

12. Water filter supplied **(mandatory installation)**.

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **supplied with Aermec DHW storage system compatible (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Auxiliary heat sources
10. Aqueduct
11. Storage discharge

BHP_F: CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

— Plate heat exchanger
— Flow switch
— Inverter pump
— Expansion vessel
— Drain valve
— Pressure relief valve
— Electric resistance system side
— 3 way valve
— DHW-system connections

SUPPLIED HYDRAULIC COMPONENTS

11. Water filter supplied **(mandatory installation)**.

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **NOT supplied (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Aqueduct
10. Storage discharge

PERFORMANCE SPECIFICATIONS

Technical data Wall unit

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W	BHP160W	BHP160W	BHP160W
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**	**BHP120**	**BHP140**	**BHP160**
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	3,20	4,10	5,30	6,50	10,07	11,30	11,60
Input power	kW	0,94	1,28	1,73	2,27	3,65	4,04	4,38
EER	W/W	3,42	3,20	3,06	2,86	2,93	2,80	2,65
Water flow rate system side	l/h	550	703	912	1118	1840	1944	1995
Useful head system side	kPa	76	74	70	63	56	54	48
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	4,00	5,90	8,00	9,50	12,40	14,50	16,10
Input power	kW	1,02	1,51	2,14	2,64	3,22	3,87	4,41
COP	W/W	3,92	3,91	3,74	3,60	3,85	3,75	3,65
Water flow rate system side	l/h	688	1015	1376	1634	2133	2494	2769
Useful head system side	kPa	74	67	51	36	45	26	11
Cooling performance 23 °C / 18 °C (3)								
Cooling capacity	kW	3,80	5,80	7,00	8,52	11,00	12,60	13,00
Input power	kW	0,82	1,32	1,75	2,25	2,50	3,41	3,60
EER	W/W	4,63	4,40	4,00	3,79	4,40	3,70	3,61
Water flow rate system side	l/h	655	992	1204	1465	1892	2167	2236
Useful head system side	kPa	75	67	60	46	54	40	34
Heating performance 30 °C / 35 °C (4)								
Heating capacity	kW	4,00	6,00	8,00	9,50	12,00	14,00	15,50
Input power	kW	0,78	1,20	1,70	2,07	2,40	2,98	3,44
COP	W/W	5,13	5,00	4,71	4,59	5,00	4,70	4,50
Water flow rate system side	l/h	688	1032	1376	1634	2064	2408	2666
Useful head system side	kPa	74	66	51	36	45	26	15
Heating performance 47 °C / 55 °C								
Heating capacity	kW	3,60	5,40	7,20	8,55	12,00	14,00	16,00
Input power	kW	1,40	2,16	3,05	3,72	3,81	4,52	5,42
COP	W/W	2,57	2,50	2,36	2,30	3,15	3,10	2,95
Useful head system side	kPa	27	19	19	12	65	60	53

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Three-phase Wall unit technical data

Indoor unit		BHP100WT	BHP100WT	BHP160WT	BHP160WT	BHP160WT
Outdoor unit		**BHP080T**	**BHP100T**	**BHP120T**	**BHP140T**	**BHP160T**
Cooling performance 12 °C / 7 °C (1)						
Cooling capacity	kW	7,60	8,20	10,07	11,30	11,60
Input power	kW	2,35	2,73	3,65	4,04	4,38
EER	W/W	3,23	3,00	2,93	2,80	2,65
Water flow rate system side	l/h	1307	1410	1840	1944	1995
Useful head system side	kPa	66	58	56	54	48
Heating performance 40 °C / 45 °C (2)						
Heating capacity	kW	8,00	10,20	12,40	14,50	16,13
Input power	kW	1,93	2,55	3,22	3,87	4,42
COP	W/W	4,15	4,00	3,85	3,75	3,65
Water flow rate system side	l/h	1376	1720	2133	2494	2774
Useful head system side	kPa	60	45	45	26	11
Cooling performance 23 °C / 18 °C (3)						
Cooling capacity	kW	8,50	10,00	11,00	12,60	13,00
Input power	kW	1,74	2,33	2,50	3,41	3,60
EER	W/W	4,89	4,29	4,40	3,70	3,61
Water flow rate system side	l/h	1462	1720	1892	2167	2236
Useful head system side	kPa	54	41	54	40	34
Heating performance 30 °C / 35 °C (4)						
Heating capacity	kW	8,00	10,00	12,00	14,00	15,54
Input power	kW	1,63	2,15	2,40	2,98	3,45
COP	W/W	4,91	4,65	5,00	4,70	4,50
Water flow rate system side	l/h	1376	1754	2064	2408	2673
Useful head system side	kPa	60	46	46	26	14
Heating performance 47 °C / 55 °C						
Heating capacity	kW	8,00	10,00	12,00	14,00	16,00
Input power	kW	2,78	3,80	3,81	4,52	5,42
COP	W/W	2,88	2,63	3,15	3,10	2,95
Useful head system side	kPa	74	70	65	60	53

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Technical data base unit

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	3,20	4,09	5,30	6,50
Input power	kW	0,94	1,28	1,73	2,27
EER	W/W	3,42	3,20	3,06	2,86
Water flow rate system side	l/h	550	703	912	1118
Useful head system side	kPa	76	74	70	63
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	4,00	5,90	8,00	9,50
Input power	kW	1,02	1,51	2,14	2,64
COP	W/W	3,92	3,91	3,74	3,60
Water flow rate system side	l/h	688	1015	1376	1634
Useful head system side	kPa	74	67	51	36
Cooling performance 23 °C / 18 °C (3)					
Cooling capacity	kW	3,80	5,80	7,00	8,52
Input power	kW	0,82	1,32	1,75	2,25
EER	W/W	4,63	4,40	4,00	3,79
Water flow rate system side	l/h	655	992	1204	1465
Useful head system side	kPa	74	69	60	46
Heating performance 30 °C / 35 °C (4)					
Heating capacity	kW	4,00	6,00	8,00	9,50
Input power	kW	0,78	1,20	1,70	2,07
COP	W/W	5,13	5,00	4,71	4,59
Water flow rate system side	l/h	688	1032	1376	1634
Useful head system side	kPa	74	66	51	36
Heating performance 47 °C / 55 °C					
Heating capacity	kW	3,60	5,40	7,20	8,55
Input power	kW	1,40	2,16	3,05	3,72
COP	W/W	2,57	2,50	2,36	2,30
Useful head system side	kPa	27	19	19	12

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Energy data Wall unit

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W	BHP160W	BHP160W	BHP160W
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**	**BHP120**	**BHP140**	**BHP160**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)								
Pdesignh	kW	5	6	7	9	11	12	13
SCOP	W/W	4,66	4,54	4,60	4,60	4,63	4,65	4,61
ηsh	%	184	179	181	181	182	183	181
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)								
Pdesignh	kW	5	5	7	8	11	13	13
SCOP	W/W	3,28	3,26	3,30	3,25	3,24	3,50	3,50
ηsh	%	128	127	129	127	126	137	137
Efficiency energy class		A++	A++	A++	A++	A++	A++	A++
Performance as combined heat generator								
Bleeding profile		XL	XL	XL	XL	XL	XL	XL
Efficiency energy class		A	A	A	A	A	A	A

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W	BHP160W	BHP160W	BHP160W
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**	**BHP120**	**BHP140**	**BHP160**
Cooling capacity with low leaving water temp (UE n° 2016/2281)								
SEER	W/W	4,21	4,12	4,11	4,12	4,90	4,91	4,78
ηsc	%	165,00	162,00	161,00	162,00	193,00	193,00	188,00

Three-phase Wall unit energy data

Indoor unit		BHP100WT	BHP100WT	BHP160WT	BHP160WT	BHP160WT
Outdoor unit		**BHP080T**	**BHP100T**	**BHP120T**	**BHP140T**	**BHP160T**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)						
Pdesignh	kW	8	9	11	12	13
SCOP	W/W	4,53	4,70	4,48	4,48	4,45
ηsh	%	178	185	176	176	175
Efficiency energy class		A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)						
Pdesignh	kW	9	10	11	13	13
SCOP	W/W	3,48	3,49	3,23	3,38	3,38
ηsh	%	136	137	126	132	132
Efficiency energy class		A++	A++	A++	A++	A++
Performance as combined heat generator						
Bleeding profile		XL	XL	XL	XL	XL
Efficiency energy class		A	A	A	A	A

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Indoor unit		BHP100WT	BHP100WT	BHP160WT	BHP160WT	BHP160WT
Outdoor unit		**BHP080T**	**BHP100T**	**BHP120T**	**BHP140T**	**BHP160T**
Cooling capacity with low leaving water temp (UE n° 2016/2281)						
SEER	W/W	4,11	4,12	4,74	4,76	4,64
ηsc	%	161,00	162,00	187,00	187,00	183,00

Energy data base unit

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)					
Pdesignh	kW	5	6	7	9
SCOP	W/W	4,66	4,54	4,60	4,60
ηsh	%	184	179	181	181
Efficiency energy class		A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)					
Pdesignh	kW	5	5	7	8
SCOP	W/W	3,28	3,26	3,30	3,25
ηsh	%	128	127	129	127
Efficiency energy class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		L	L	L	L
Efficiency energy class		A	A	A	A

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**
Cooling capacity with low leaving water temp (UE n° 2016/2281)					
SEER	W/W	4,21	4,12	4,11	4,12
ηsc	%	165,00	162,00	161,00	162,00

INDOOR UNIT

BHP_W indoor wall unit

		BHP060W	BHP100W	BHP160W
Electric data				
Rated power input (1)	kW	3,10	6,10	6,10
Electric heater				
Number	no.	2	2	2
Power of the single heater	kW	1,50	3,00	3,00
System side heat exchanger				
Type	type		Brazed plate	
Number	no.	1	1	1
Unit / system input	type		G1 male	
Unit / system output	type		G1 male	
DHW output	type		G1 male	
Circulator				
Quantity	no.	1	1	1
Motor	type		DC brushless	
Expansion vessel				
Number	no.	1	1	1
Volume	l	10,0	10,0	10,0
Maximum pressure	bar	2,5	2,5	2,5
Sound data calculated in cooling mode (2)				
Sound power level	dB(A)	42,0	42,0	42,0
Sound pressure	dB(A)	14,0	14,0	14,0
Power supply				
Power supply			230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Three-phase wall unit BHP_WT

		BHP100WT	BHP160WT
Electric data			
Rated power input (1)	kW	6,10	6,10
Electric heater			
Number	no.	2	2
Power of the single heater	kW	3,00	3,00
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Unit / system input	type	G1 male	
Unit / system output	type	G1 male	
DHW output	type	G1 male	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	2,5	2,5
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	14,0	14,0
Power supply			
Power supply		400V ~ 3N 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

BHP_F indoor base unit

		BHP060F	BHP100F
Electric data			
Rated power input (1)	kW	3,10	6,10
Electric heater			
Number	no.	2	2
Power of the single heater	kW	1,50	3,00
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Unit / system input	type	G1 male	
Mains water input	type	G1 male	
Unit / system output	type	G1 male	
DHW output	type	G1 male	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	2,5	2,5
Storage tank (DHW)			
Volume	l	185	185
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	14,0	14,0
Power supply			
Power supply		230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

OUTDOOR UNIT

		BHP040	BHP060	BHP080	BHP080T	BHP100	BHP100T
Electric data							
Rated current input (1)	A	10,0	10,0	19,0	7,5	22,0	7,5
Compressor							
Type	type	Rotativo doppio stadio inverter					
Number	no.	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1
Refrigerant	type	R32					
Refrigerant charge	kg	1,00	1,00	1,60	1,84	1,60	1,84
Potential global heating	GWP	675kgCO_2eq					
Oil							
Type	type	FW68DA					
Quantity	l	0,47	0,47	0,84	0,84	0,84	0,84
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")					
Exchanger							
Type	type	Finned coil					
Louvers type	type	Golden fin					
Number	no.	1	1	1	1	1	1
Expansion vessel							
Type	type	Electronic expansion valve					
Number	no.	1	1	1	1	1	1
Fan							
Type	type	Inverter axial					
Fan motor	type	DC brushless					
Number	no.	1	1	1	1	1	1
Air flow rate	m^3/h	3200	3200	3300	3300	3300	3300
Sound data calculated in cooling mode (2)							
Sound power level	dB(A)	62,0	62,0	67,0	68,0	68,0	68,0
Sound pressure level (1 m)	dB(A)	52,0	52,0	55,0	55,0	55,0	55,0
Sound pressure level (10 m)	dB(A)	34,0	34,0	39,0	40,0	40,0	40,0
Power supply							
Power supply		230V ~ 50Hz			400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz

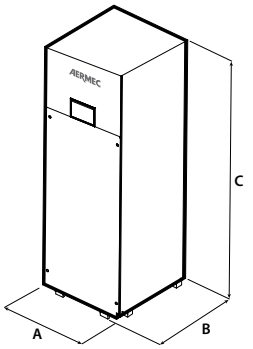
		BHP120	BHP120T	BHP140	BHP140T	BHP160	BHP160T
Electric data							
Rated current input (1)	A	25,6	9,2	28,7	11,5	30,3	11,5
Compressor							
Type	type	Rotativo doppio stadio inverter					
Number	no.	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1
Refrigerant	type	R32					
Refrigerant charge	kg	1,84	1,84	1,84	1,84	1,84	1,84
Potential global heating	GWP	675kgCO_2eq					
Oil							
Type	type	FW68DA					
Quantity	l	1,05	1,05	1,05	1,05	1,05	1,05
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")			15,87 (5/8")		
Exchanger							
Type	type	Finned coil					
Louvers type	type	Golden fin					
Number	no.	1	1	1	1	1	1
Expansion vessel							
Type	type	Electronic expansion valve					
Number	no.	1	1	1	1	1	1
Fan							
Type	type	Inverter axial					
Fan motor	type	DC brushless					
Number	no.	1	1	1	1	1	1
Air flow rate	m^3/h	5044	5044	5044	5044	5044	5044
Sound data calculated in cooling mode (2)							
Sound power level	dB(A)	68,0	68,0	68,0	68,0	68,0	68,0
Sound pressure level (1 m)	dB(A)	60,0	60,0	61,0	61,0	61,0	61,0
Sound pressure level (10 m)	dB(A)	40,0	40,0	40,0	40,0	40,0	40,0
Power supply							
Power supply		230V ~ 50Hz	400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

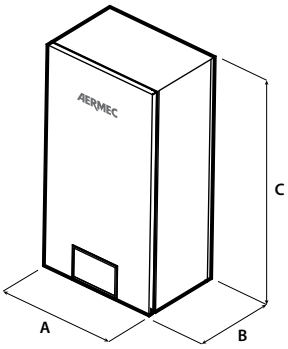
DIMENSIONS AND WEIGHTS

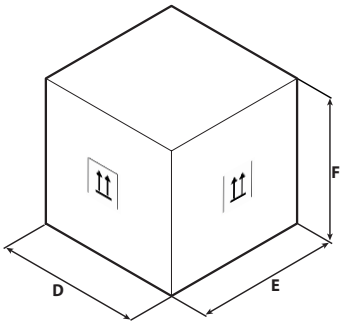
Indoor units

BHP_F



BHP_W





Carton Box Example

BHP_W

		BHP060W	BHP100W	BHP160W
Indoor unit				
A	mm	460	460	460
B	mm	318	318	318
C	mm	860	860	860
D	mm	568	568	568
E	mm	390	390	390
F	mm	1133	1133	1133
Net weight	kg	62,0	62,0	58,0
Weight for transport	kg	71,0	71,0	71,0

BHP_WT

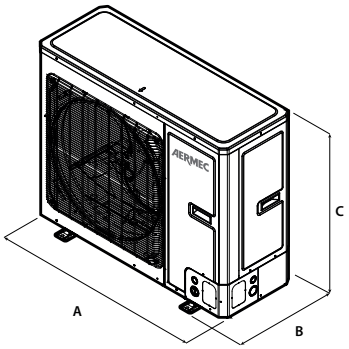
		BHP100WT	BHP160WT
Indoor unit			
A	mm	460	460
B	mm	318	318
C	mm	860	860
D	mm	568	568
E	mm	390	390
F	mm	1133	1133
Net weight	kg	60,0	60,0
Weight for transport	kg	71,0	71,0

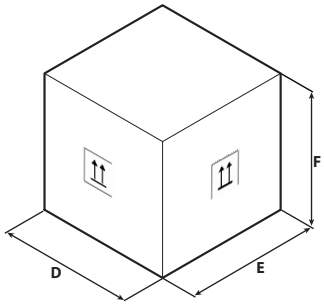
BHP_F

		BHP060F	BHP100F
Indoor unit			
A	mm	600	600
B	mm	600	600
C	mm	1756	1756
D	mm	803	803
E	mm	683	683
F	mm	2000	2000
Net weight	kg	210,0	210,0
Weight for transport	kg	233,0	233,0

Outdoor units

BHP





Carton Box Example

BHP

		BHP040	BHP060	BHP080	BHP080T	BHP100	BHP100T
Outdoor unit							
A	mm	975	975	982	982	982	982
B	mm	396	396	427	360	427	360
C	mm	702	702	787	787	787	787
D	mm	1028	1028	1097	1097	1097	1097
E	mm	458	458	478	478	478	478
F	mm	830	830	937	937	937	937
Net weight	kg	55,0	55,0	82,0	88,0	82,0	88,0
Weight for transport	kg	65,0	65,0	92,0	98,0	92,0	98,0

		BHP120	BHP120T	BHP140	BHP140T	BHP160	BHP160T
Outdoor unit							
A	mm	940	940	940	940	940	940
B	mm	460	460	460	460	460	460
C	mm	820	820	820	820	820	820
D	mm	1103	1103	1103	1103	1103	1103
E	mm	573	573	573	573	573	573
F	mm	973	973	973	973	973	973
Net weight	kg	104,0	110,0	104,0	110,0	104,0	110,0
Weight for transport	kg	114,0	121,0	114,0	121,0	114,0	121,0

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www.aermec.com

HMG – HMG_P

Reversible air/water heat pump

HMG: Cooling capacity 32 ÷ 60 kW – Heating capacity 35 ÷ 65 kW
HMG_P: Cooling capacity 33 ÷ 60 kW – Heating capacity 36 ÷ 65 kW

- New R32 ecological refrigerant gas
- Touch-screen control panel
- Easy and quick to install
- Reliability and compactness
- Modularity

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

HMG and HMG_P are the new outdoor reversible inverter heat pump system for producing chilled and heated water.
These units are designed to meet the plant engineering needs of residential or commercial contexts, or industrial applications.
HMG and HMG_P Are designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.
They can be combined with low-temperature emission systems such as floor heating or fan coils.
They are formed of fully independent modules that can be linked together to create a modular system, with the possibility to connect units of different power levels.
The base, the structure and the panels are made of galvanized steel treated with polyester paint.
HMG_P comes supplied with the main hydraulic components needed, thereby facilitating the final installation and is supplied with Integrated hydronic kit

FEATURES

Operating limits

Operation from -20°C outside air temperature (winter) to 52°C (summer).
Production of hot water up to 50 °C.
For more information about the operating limits of these units, refer to the specific paragraph on this product data sheet.

Modularity

HMG and HMG_P unit can be installed in a modular system of reversible inverter heat pumps for producing hot and chilled water, with connectable base modules purposely designed to minimise the overall dimensions. Units of different power levels can be connected.
Modularity allows the installation of these units to be adapted to the real system development requirements, so the installed power can be increased over time in a simple and cost effective manner.
On the basis of these requirements, the user can choose either: **homogeneous modularity** or **sequential modularity**.

Homogeneous modularity

Made possible with the use of a control panel **TCP** (mandatory accessory) to be connected to the master unit of the system.
This type of modularity allows the modules to work with a homogeneous capacity control logic whilst still guaranteeing delay switch-on and switch-off to avoid power consumption peaks and intelligent defrosting (the simultaneous defrosting of up to 1/3 of the modules installed).
Up to 16 modules for HMG and 3 modules for HMG_P can be linked together with this operating mode.

For HMG

To take full advantage of the characteristics of this working mode, you are advised to use it in systems with a pump (or a group of pumps) that serves all the units. The control logic manages the switch-on and switch-off of the pump(s) on the basis of the operating conditions of the generation system.

Sequential modularity

Made possible with the use of accessories **TCP** (mandatory accessory), **IC-2P, VMF-485LINK** and **VMF-E6.**
This type of modularity allows the HMG and HMG_P units to be added to the control system of the whole hydraulic/aeraulic system, so DHW can also be managed.
Unit switch-on and switch-off is managed in a sequential manner, according to a selected control logic (free regulation, regulation by load or regulation by temperature difference).
For more information about VMF system, refer to the dedicated documentation.
Up to 4 modules HMG and 3 modules HMG_P can be linked together with this operating mode.
Management is optimised for systems where each unit HMG commands its own pump.

Main components

HMG

— Flow switch.
— DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
— Compressor twin rotary inverter.
— Special coil with fin golden coating.
— High-efficiency shell & tube heat exchanger (system side) for excellent reliability and a long lifespan.
— Electronic expansion valve.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

HMG_P

— DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
— Compressor twin rotary inverter.
— Special coil with fin golden coating.
— High-efficiency plate heat exchanger (system side) for excellent reliability and a long lifespan.
— Electronic expansion valve.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

Main hydraulic components HMG_P

— Flow switch.
— Inverter pump.
— Expansion tank.
— Drain valve.
— Safety valve.
— Water filter supplied (mandatory installation).

Regulation

Adjustment via **touch-screen control panel (TCP accessory compulsory)**::

— **Only for HMG**: management of (up to) two pumps (not supplied) that can work alternately, boosting the reliability of the system,
— management of (up to) two auxiliary electric resistors (not supplied),
— **Quiet** function for reduced noise operation,
— climatic regulation function,
— unit anti-freeze protection at low temperatures,
— weekly programming in time periods,
— high and low pressure protection,
— smart compressor control, extending the lifespan of the unit and enhancing its reliability,
— alarm history.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.

ACCESSORIES

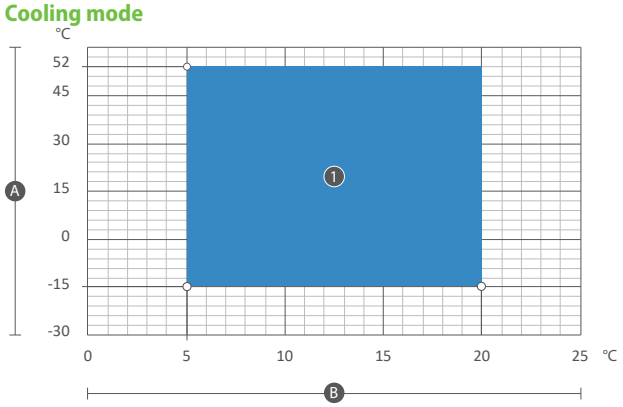
TCP: Touch-screen control panel. (Accessory compulsory).
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.
VMF-E6: White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aeraulic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).
LOGATW: Diagnostic tool for air-water heat pumps.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

OPERATING LIMITS

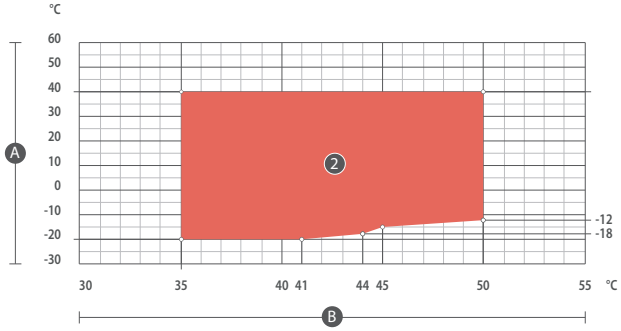
Cooling mode



KEY

1	cooling mode
A	outdoor air temperature (°C)
B	water produced temperature (°C)

Heating mode range

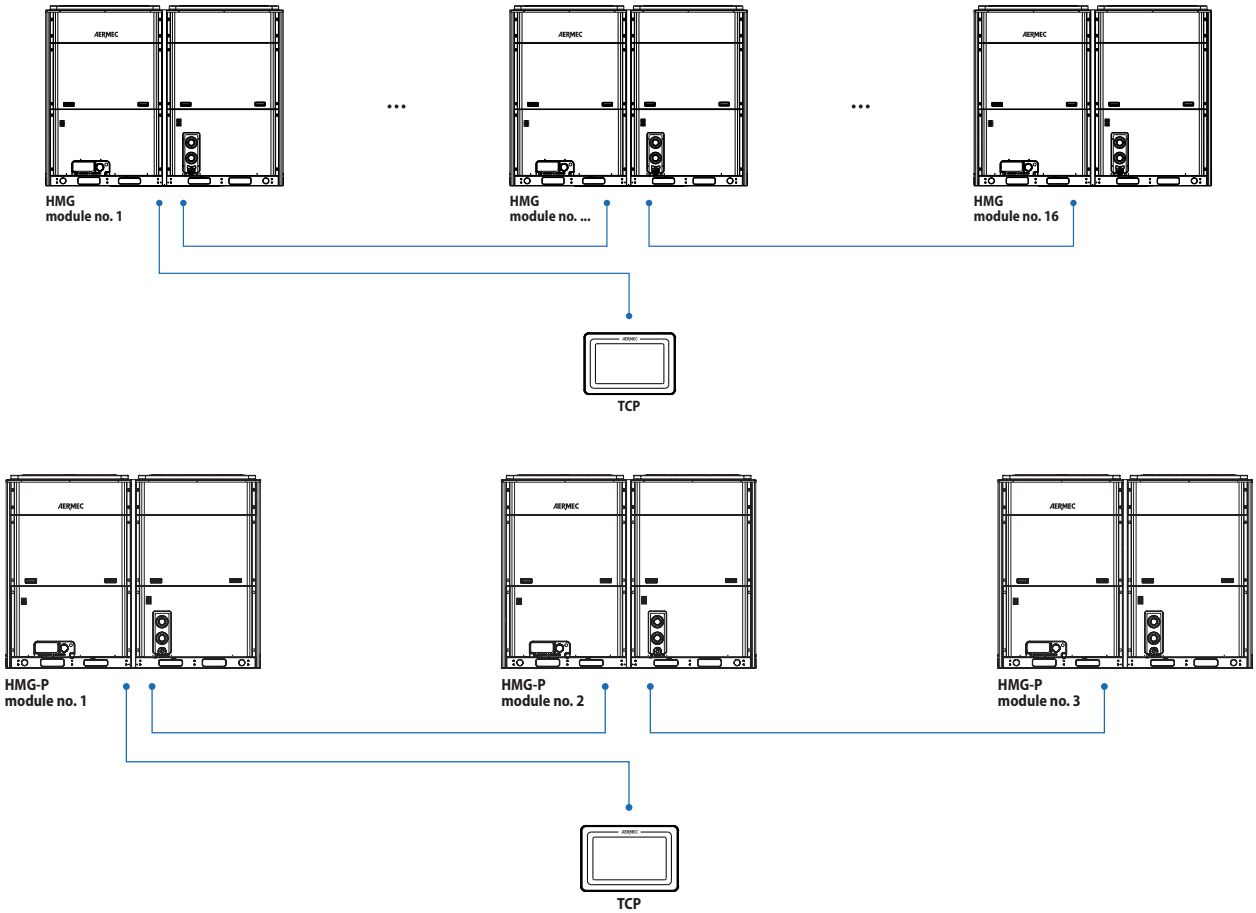


KEY

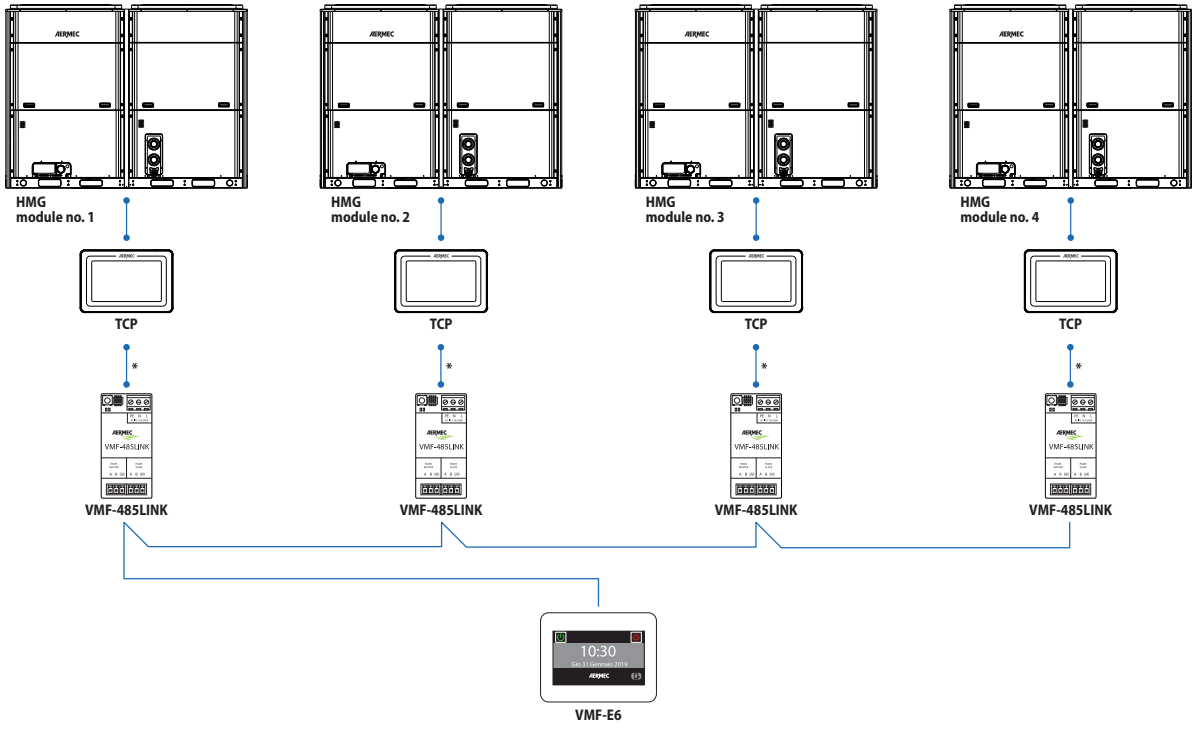
2	heating mode
A	outdoor air temperature (°C)
B	water produced temperature (°C)

MODULARITY

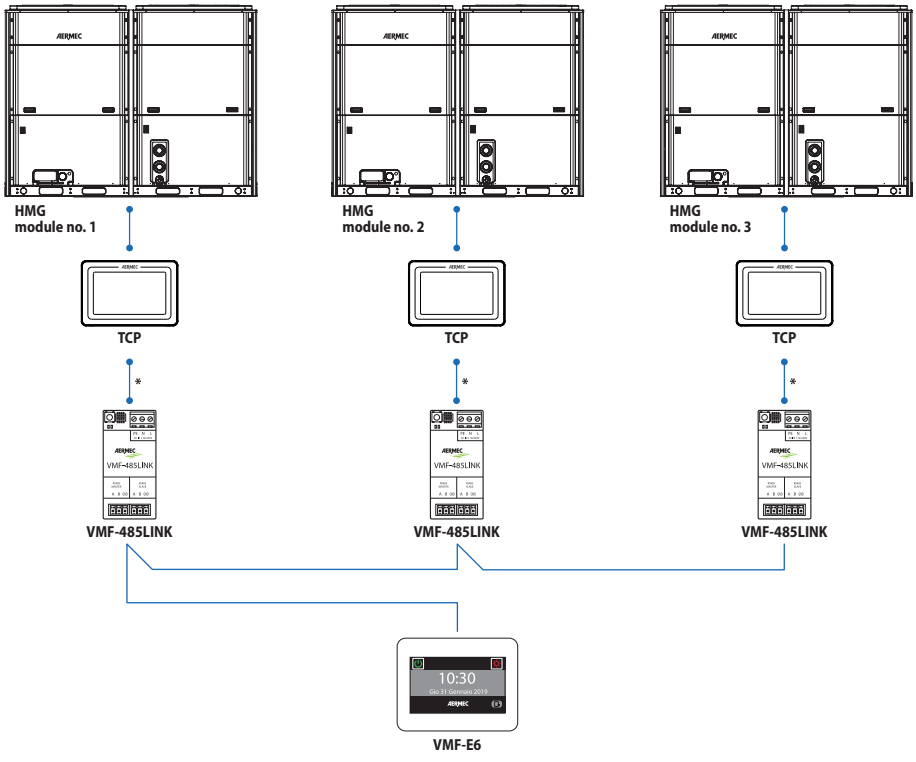
Homogeneous modularity - connection diagram



Sequential modularity - connection diagram



* Connection to be made with the aid of the accessory IC-2P.



* Connection to be made with the aid of the accessory IC-2P.

PERFORMANCE SPECIFICATIONS

		HMG0350	HMG0600
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	kW	32,0	60,0
Input power	kW	11,7	20,8
Water flow rate system side	l/h	5528	10346
Pressure drop system side	kPa	80	55
Cooling total input current	A	19,2	32,9
EER	W/W	2,74	2,88
Heating performance 40 °C / 45 °C (2)			
Heating capacity	kW	35,0	65,0
Input power	kW	10,6	19,9
Water flow rate system side	l/h	6039	11249
Heating total input current	A	17,5	30,7
COP	W/W	3,30	3,27
Cooling performance 23 °C / 18 °C (3)			
Cooling capacity	kW	41,4	72,5
Input power	kW	10,5	19,1
Water flow rate system side	l/h	7198	12574
Cooling total input current	A	16,2	31,0
EER	W/W	3,94	3,80
Heating performance 30 °C / 35 °C (4)			
Heating capacity	kW	36,0	62,6
Input power	kW	8,8	15,1
Water flow rate system side	l/h	6191	10798
Heating total input current	A	12,4	24,2
COP	W/W	4,09	4,15

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

		HMG0350P	HMG0600P
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	kW	33,0	60,0
Input power	kW	11,4	21,1
Water flow rate system side	l/h	5680	10320
Pressure drop system side	kPa	-	-
Cooling total input current	A	18,7	33,2
EER	W/W	2,89	2,84
Heating performance 40 °C / 45 °C (2)			
Heating capacity	kW	36,0	65,0
Input power	kW	10,9	19,7
Water flow rate system side	l/h	6190	11180
Heating total input current	A	18,1	32,3
COP	W/W	3,30	3,30
Cooling performance 23 °C / 18 °C (3)			
Cooling capacity	kW	32,8	64,0
Input power	kW	8,0	18,0
Water flow rate system side	l/h	5648	11015
Cooling total input current	A	13,3	28,4
EER	W/W	4,10	3,57
Heating performance 30 °C / 35 °C (4)			
Heating capacity	kW	33,4	61,6
Input power	kW	8,4	16,0
Water flow rate system side	l/h	5729	10650
Heating total input current	A	13,8	25,4
COP	W/W	4,00	3,86

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMG0350	HMG0600
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)			
Pdesignh	kW	24	51
SCOP	W/W	3,90	3,90
ηsh	%	153	153
Efficiency energy class		A++	A++
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
ηsc	%	173,00	181,00
SEER	W/W	4,40	4,60

(1) Efficiencies for low temperature applications (35 °C)

		HMG0350P	HMG0600P
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)			
Pdesignh	kW	24	52
SCOP	W/W	4,00	4,01
ηsh	%	157	158
Efficiency energy class		A++	A++
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
ηsc	%	183,00	186,60
SEER	W/W	4,65	4,74

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

		HMG0350	HMG0600
Electric data			
Rated current input (1)	A	22,0	52,0
Power supply			
Power supply		380-415V 3N ~ 50Hz	380-415V 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		HMG0350P	HMG0600P
Electric data			
Rated current input (1)	A	13,4	25,6
Power supply			
Power supply		380-415V 3N ~ 50Hz	380-415V 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

GENERAL TECHNICAL DATA

		HMG0350	HMG0600
Compressor			
Type	type	Inverter rotary	
Number	no.	1	2
Circuits	no.	1	2
Refrigerant	type	R32	
Refrigerant load circuit 1 (1)	kg	5,5	5,5
Refrigerant load circuit 2 (1)	kg	-	5,5
System side heat exchanger			
Type	type	Shell and tube	
Number	no.	1	1
Connections (in/out)	Type	G1" 1/2 (male)	G2" (male)
Fan			
Type	type	Axial	
Fan motor	type	Inverter	
Number	no.	2	2
Air flow rate	m^3/h	12600	24000
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	81,0	86,0
Sound pressure level (10 m)	dB(A)	49,5	54,3
Sound pressure level (1 m)	dB(A)	65,0	69,0

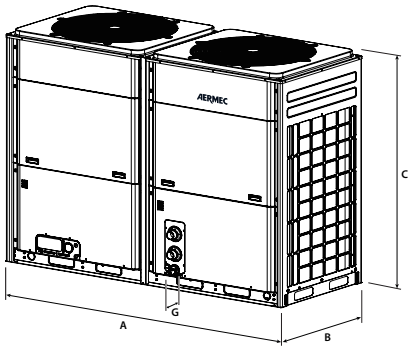
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

		HMG0350P	HMG0600P
Compressor			
Type	type	Inverter rotary	
Number	no.	1	2
Circuits	no.	1	2
Refrigerant	type	R32	
Compressor			
Refrigerant load circuit 1	kg	5,20	5,35
Refrigerant load circuit 2	kg	-	5,35
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Connections (in/out)	Type	Gas maschio	
Fan			
Type	type	Axial	
Fan motor	type	Inverter	
Number	no.	2	2
Air flow rate	m^3/h	12600	24000
Sound data calculated in cooling mode (1)			
Sound power level	dB(A)	81,0	86,0
Sound pressure level (10 m)	dB(A)	-	-
Sound pressure level (1 m)	dB(A)	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

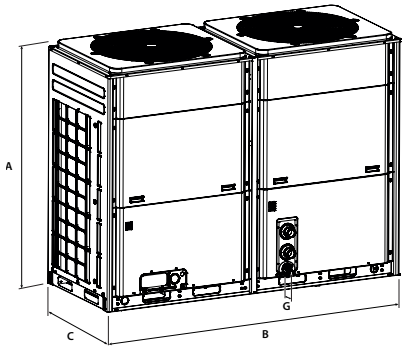
HMG



		HMG0350	HMG0600
Dimensions and weights			
A	mm	1340	2200
B	mm	765	880
C	mm	1605	1675
G	mm	80	85
D	mm	1420	2267
E	mm	920	1030
F	mm	1775	1867
Net weight	kg	405,0	686,0
Weight for transport	kg	422,0	722,0

G: tap protrusion

HMG_P



		HMG0350P	HMG0600P
Dimensions and weights			
A	mm	1605	1675
B	mm	1340	2200
C	mm	765	880
G	mm	37	57
D	mm	1775	1867
E	mm	1420	2267
F	mm	905	1030
Net weight	kg	323,0	609,0
Weight for transport	kg	340,0	645,0

G: tap protrusion

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ANLI

Reversible air/water heat pump

Cooling capacity 29,0 ÷ 42,3 kW – Heating capacity 31,4 ÷ 33,3 kW

- **Version with built-in hydronic kit inverter**
- **High efficiency also at partial loads**
- **Production of hot domestic water (d.H.W.)**

DESCRIPTION

Reversible inverter heat pump for outdoor use suitable for responding to heating / cooling requests and the production of domestic hot water. Equipped with inverter compressor, axial fans, external copper coils with aluminum fins, plate heat exchanger on the system side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
It can be combined in systems with hydronic terminals or even with traditional radiators and perfectly meets the needs of the residential market: low noise, easy installation.

VERSIONS

° Standard
P With on/off pump
X With inverter pump

FEATURES

Operating field

Work at full load up to 42 °C outside air temperature in the summer season with the possibility of producing hot water up to 60 °C (for more details refer to the technical documentation).

Components

— High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation
— Differential pressure switch / flow switch as standard
— Water filter
— High efficiency heat exchangers
— Axial flow fan units for extremely quiet operation
— Fitted with EMC filters

Integrated hydronic kit

The built-in hydraulic kit includes:
— Expansion vessel
— Safety valve water side
— Air vent valve

Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
— ΔP constant: the differential pressure between pump inlet and outlet is kept constant, the number of revolutions is reduced with the progressive closing of the terminals;
— ΔP variable: the differential pressure is reduced as the flow rate decreases, to take into account the lower pressure drops along the supply pipes to the terminals (recommended if the development of these pipes is high).

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.
— Capable of variable water flow rates on primary circuit (terminals with 2-way valves);
— Perfect water temperature control even in systems with low water content;
— Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided).

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

NB: if the SAF thermo-accumulator is used, the MOD485-BL accessory is not required.

FACTORY FITTED ACCESSORIES

KR: Anti-freeze electric heater for the plate heat exchanger.
KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	101
AERBAC-MODU	°,P,X	•
AERLINK	°,P,X	•
AERSET	°,P,X	•
MODU-485BL	°,P,X	•
MULTICONTROL	°,P,X	•
PR3	°,P,X	•
SAF (1)	°,P,X	•
SDHW (2)	°,P,X	•
SGD	°,P,X	•
SPLW (3)	°,P,X	•
VMF-CRP	°,P,X	•

(1) For more information about SAF refer to the dedicated documentation.
(2) Probe required for MULTICONTROL for managing the domestic hot water system.
(3) Probe required for MULTICONTROL to manage the secondary circuit system.

BSKW: Electric heater kit

Model	Ver	101
BS6KW400T	°,P,X	•
BS9KW400T	°,P,X	•

DCPX: Condensation control temperature

Ver	101
°,P,X	DCPX53

VT: Antivibration

Ver	101
°,P,X	VT15

KR: electric heater for the heat exchanger

Ver	101
°,P,X	KR100

A grey background indicates the accessory must be assembled in the factory

KRB: Electric heater for the base

Ver	101
°,P,X	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	**ANLI**
5,6,7	**Size** 101
8	**Model**
H	Heat pump
9	**Version**
°	Standard
P	With on/off pump
X	With inverter pump
10	**Heat recovery**
°	Without heat recovery
11	**Coils**
°	Alluminium
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pieps-Coated aluminium fins
12	**Operating field (1)**
°	Electronic thermostatic expansion valve
13	**Evaporator**
°	Standard
14	**Power supply**
T	400V 3N ~ 50Hz

(1) Water produced up to +4 °C. For different temperature please contact the factory.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANLI - (H°)

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	28,9
Input power	kW	11,7
Cooling total input current	A	16,0
EER	W/W	2,48
Water flow rate system side	l/h	4986
Pressure drop system side	kPa	50
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,5
Input power	kW	11,3
Heating total input current	A	16,0
COP	W/W	2,78
Water flow rate system side	l/h	5458
Pressure drop system side	kPa	59

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANLI - (HX)

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,3
Input power	kW	11,9
Cooling total input current	A	18,0
EER	W/W	2,47
Water flow rate system side	l/h	4986
Useful head system side	kPa	175
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,2
Input power	kW	11,5
Heating total input current	A	17,0
COP	W/W	2,70
Water flow rate system side	l/h	5458
Useful head system side	kPa	158

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANLI - (HP)

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,2
Input power	kW	11,7
Cooling total input current	A	17,0
EER	W/W	2,49
Water flow rate system side	l/h	4986
Useful head system side	kPa	92
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,2
Input power	kW	11,4
Heating total input current	A	17,0
COP	W/W	2,74
Water flow rate system side	l/h	5458
Useful head system side	kPa	76

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANLI - (H°)

Size		101
Cooling performance 23 °C / 18 °C (1)		
Cooling capacity	kW	42,3
Input power	kW	13,1
Cooling total input current	A	19,0
EER	W/W	3,22
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	107
Heating performance 30 °C / 35 °C (2)		
Heating capacity	kW	33,3
Input power	kW	9,5
Heating total input current	A	13,0
COP	W/W	3,51
Water flow rate system side	l/h	5763
Pressure drop system side	kPa	66

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANLI - (HX)

Size		101
Cooling performance 23 °C / 18 °C (1)		
Cooling capacity	kW	42,3
Input power	kW	14,3
Cooling total input current	A	21,0
EER	W/W	2,96
Water flow rate system side	l/h	7301
Useful head system side	kPa	81
Heating performance 30 °C / 35 °C (2)		
Heating capacity	kW	33,3
Input power	kW	10,5
Heating total input current	A	15,0
COP	W/W	3,17
Water flow rate system side	l/h	5763
Useful head system side	kPa	147

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANLI - (HP)

Size			101
Cooling performance 23 °C / 18 °C (1)			
Cooling capacity		kW	42,3
Input power		kW	14,3
Cooling total input current		A	21,0
EER		W/W	2,96
Water flow rate system side		l/h	7301
Useful head system side		kPa	81
Heating performance 30 °C / 35 °C (2)			
Heating capacity		kW	33,3
Input power		kW	10,5
Heating total input current		A	15,0
COP		W/W	3,17
Water flow rate system side		l/h	5763
Useful head system side		kPa	147

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			101
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
SEER	°	W/W	3,81
	P,X	W/W	3,57
ηsc	°	%	149,20
	P,X	%	139,80
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)			
Pdesignh	°,P,X	kW	-
SCOP	°,X	W/W	3,23
	P	W/W	3,25
ηsh	°,X	%	126,00
	P	%	127,00
Efficiency energy class	°,P,X		A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

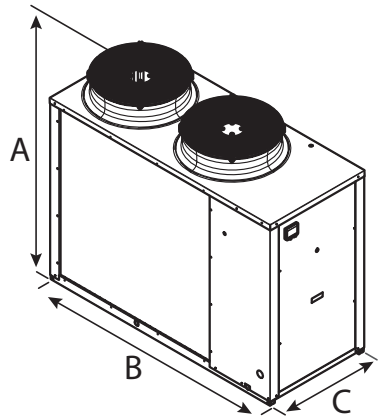
Size			101
Electric data			
Maximum current (FLA)	°	A	21,0
	P	A	24,4
	X	A	25,5
Peak current (LRA)	°,P,X	A	-

GENERAL TECHNICAL DATA

Size			101
Compressor			
Type	°,P,X	type	Scroll
Number	°,P,X	no.	1
Compressor regulation	°,P,X	Type	Inverter
Circuits	°,P,X	no.	1
Refrigerant	°,P,X	type	R410A
Refrigerant charge (1)	°,P,X	kg	4,5
System side heat exchanger			
Type	°,P,X	type	Brazed plate
Number	°,P,X	no.	1
Hydraulic connections			
Connections (in/out)	°,P,X	Type	Gas - F
Sizes (in/out)	°,P,X	Ø	1"1/4
Fan			
Type	°,P,X	type	Axial
Fan motor	°,P,X	type	On/Off
Number	°,P,X	no.	2
Air flow rate	°,P,X	m^3/h	13200
Sound data calculated in cooling mode (2)			
Sound power level	°,P,X	dB(A)	76,0
Sound pressure level (10 m)	°,P,X	dB(A)	44,5

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			101
Dimensions and weights			
A	°,P,X	mm	1450
B	°,P,X	mm	1750
C	°,P,X	mm	750
Empty weight	°	kg	293
	P,X	kg	308

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www.aermec.com

ANK 020-150

Reversible air/water heat pump

Cooling capacity 6,8 ÷ 39,8 kW – Heating capacity 8,0 ÷ 35,3 kW

- **Production of hot water up to 60 °C**
- **Production of hot domestic water with external temperatures from –20 °C up to 42 °C**
- **Compact dimensions**
- **Quick & easy installation**

DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
P With pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Soft-start

Version with Integrated hydronic kit

To have a Plug & Play solution is also available the version with the integrated Hydronic group that contains the main hydraulic components including the water filter.

Inverter fan

Inverter fans as standard in size up 020 to 085 in all versions.

The DCPX accessory is not required for these sizes.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KRB: Electric anti-freeze resistance kit for base.
BDX: Condensate drip with resistance

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	020	030	040	045	050	085	100	150
AERBAC-MODU	°,A,P	•	•	•	•	•	•	•	•
AERLINK	°,A,P	•	•	•	•	•	•	•	•
AERSET	°,A,P	•	•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•
SDHW (1)	°,A,P	•	•	•	•	•	•	•	•
SGD	°,A,P	•	•	•	•	•	•	•	•
SPLW (2)	°,A,P	•	•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL for managing the domestic hot water system.
(2) Probe required for MULTICONTROL to manage the secondary circuit system.

Ver	020	030	040	045	050	085	100	150
°,A,P	-	-	-	-	-	-	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°,A,P	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T
Power supply: M								
°,A,P	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	-	-	-	-

Ver	020	030	040	045	050	085	100	150
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°,A,P	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°,A,P	KRB1 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°,A,P	BDX8	BDX9	BDX9	BDX9	BDX9	BDX9	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**ANK**
4,5,6	**Size** 020, 030, 040, 045, 050, 085, 100, 150
7	**Model**
H	Heat pump
8	**Version**
°	Standard
A	With storage tank and pump
P	With pump
9	**Execution**
°	Standard
10	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
11	**Operating field**
°	Standard mechanic thermostatic valve (1)
Y	Low temperature mechanic thermostatic valve (2)
Z	Low temperature electronic thermostatic valve (3)
12	**Evaporator**
°	Standard
13	**Power supply**
°	400V 3N ~ 50Hz (4)
M	230V ~ 50Hz (5)

(1) Water produced up to +4 °C
(2) Water produced from 0 °C ÷ -8 °C
(3) Water produced from +4 °C up to +0 °C
(4) For ANK 020 ÷ 045 sizes
(5) Only for ANK 020 ÷ 045 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANK - (°) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,8	8,2	10,5	11,6	13,1	15,5	25,3	29,3
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,1	10,0
Cooling total input current	A	4,3	5,6	7,1	7,7	8,7	11,0	17,0	20,0
EER	W/W	2,93	2,91	2,98	2,93	3,03	3,00	3,12	2,92
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Pressure drop system side	kPa	16	9	16	14	18	24	32	36
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	8,0	10,0	12,2	14,0	15,3	17,4	27,1	33,3
Input power	kW	2,5	3,1	3,8	4,2	4,4	5,0	8,3	10,5
Heating total input current	A	4,7	6,2	7,6	8,0	9,0	10,0	18,0	21,0
COP	W/W	3,21	3,24	3,25	3,38	3,48	3,46	3,24	3,19
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Pressure drop system side	kPa	22	14	22	21	25	31	37	47

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		020	030	040	045	050	085	100	150
Power supply: M									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,8	8,2	9,6	11,7	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	11,0	13,0	16,0	19,0	-	-	-	-
EER	W/W	2,92	2,91	2,97	3,16	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Pressure drop system side	kPa	16	9	14	14	-	-	-	-
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	8,0	10,0	10,9	13,5	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,8	-	-	-	-
Heating total input current	A	12,0	15,0	17,0	19,0	-	-	-	-
COP	W/W	3,16	3,24	3,15	3,50	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Pressure drop system side	kPa	22	14	18	19	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (A/P) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	10,6	11,7	13,2	15,7	25,6	29,7
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,2	10,4
Cooling total input current	A	4,6	6,0	7,5	8,3	9,3	11,0	18,0	22,0
EER	W/W	3,00	2,97	3,05	2,95	3,06	3,03	3,12	2,87
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Useful head system side	kPa	78	82	70	81	74	63	115	144
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	12,1	13,9	15,2	17,3	26,8	33,0
Input power	kW	2,4	3,0	3,7	4,2	4,4	5,0	8,4	10,8
Heating total input current	A	5,0	6,6	8,0	8,6	9,6	11,0	19,0	23,0
COP	W/W	3,22	3,26	3,27	3,35	3,46	3,44	3,18	3,05
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Useful head system side	kPa	72	76	61	68	59	50	105	109

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		020	030	040	045	050	085	100	150
Power supply: M									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	9,7	11,8	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	12,0	14,0	16,0	20,0	-	-	-	-
EER	W/W	2,99	2,96	3,02	3,17	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Useful head system side	kPa	78	71	62	70	-	-	-	-
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	10,8	13,4	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,9	-	-	-	-
Heating total input current	A	13,0	15,0	18,0	20,0	-	-	-	-
COP	W/W	3,17	3,25	3,16	3,45	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Useful head system side	kPa	72	58	52	57	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANK - (°) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,4	14,7	16,2	18,2	21,7	34,0	39,4
Input power	kW	2,4	2,9	3,7	4,2	4,5	5,5	8,8	10,9
Cooling total input current	A	4,5	5,8	7,4	8,0	9,1	11,0	18,0	22,0
EER	W/W	3,88	3,86	3,95	3,89	4,02	3,96	3,86	3,61
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Pressure drop system side	kPa	31	18	31	27	35	47	58	66
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,5	10,6	13,0	14,6	16,2	18,2	29,2	35,6
Input power	kW	2,1	2,6	3,1	3,5	3,8	4,3	6,9	8,8
Heating total input current	A	4,0	5,2	6,2	6,8	7,7	8,9	15,0	18,0
COP	W/W	4,03	4,04	4,20	4,15	4,31	4,18	4,21	4,07
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Pressure drop system side	kPa	25	15	25	22	28	33	43	53

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		020	030	040	045	050	085	100	150
Power supply: M									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,4	13,3	16,3	-	-	-	-
Input power	kW	2,5	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	19,0	-	-	-	-
EER	W/W	3,86	3,86	3,94	4,19	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Pressure drop system side	kPa	31	18	27	27	-	-	-	-
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,5	10,6	11,6	14,0	-	-	-	-
Input power	kW	2,2	2,6	2,8	3,3	-	-	-	-
Heating total input current	A	10,0	12,0	14,0	16,0	-	-	-	-
COP	W/W	3,96	4,04	4,08	4,30	-	-	-	-
Water flow rate system side	l/h	1473	1830	2001	2424	-	-	-	-
Pressure drop system side	kPa	25	15	21	20	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANK - (A/P) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,5	14,8	16,3	18,4	21,8	34,3	39,8
Input power	kW	2,4	2,9	3,6	4,2	4,5	5,5	8,9	11,4
Cooling total input current	A	5,1	6,5	8,1	9,2	10,0	12,0	19,0	24,0
EER	W/W	4,00	3,98	4,06	3,92	4,05	3,99	3,85	3,48
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Useful head system side	kPa	62	70	45	55	38	16	66	51
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,4	10,5	12,9	14,5	16,1	18,0	28,9	35,3
Input power	kW	2,1	2,6	3,0	3,5	3,8	4,3	7,0	9,2
Heating total input current	A	4,6	5,9	6,9	7,9	8,8	10,0	16,0	20,0
COP	W/W	4,07	4,08	4,26	4,12	4,28	4,16	4,11	3,85
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Useful head system side	kPa	69	73	56	65	54	45	95	90

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		020	030	040	045	050	085	100	150
Power supply: M									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,6	11,5	13,4	16,4	-	-	-	-
Input power	kW	2,4	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	20,0	-	-	-	-
EER	W/W	3,99	3,93	4,00	4,18	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Useful head system side	kPa	62	47	29	32	-	-	-	-
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,6	10,8	11,9	13,8	-	-	-	-
Input power	kW	2,2	2,6	2,9	3,4	-	-	-	-
Heating total input current	A	11,0	13,0	15,0	17,0	-	-	-	-
COP	W/W	3,88	4,11	4,10	4,11	-	-	-	-
Water flow rate system side	l/h	1486	1877	2061	2397	-	-	-	-
Useful head system side	kPa	58	65	58	79	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Energy index ANK - 400V

Size			020	030	040	045	050	085	100	150
Power supply: °										
SEER - 12/7 (EN14825: 2018) (1)										
Seasonal efficiency	°	%	119,80	124,10	129,80	129,80	135,00	135,00	149,40	142,30
	A,P	%	120,70	125,00	132,50	130,10	135,40	137,10	146,60	137,00
SEER	°	W/W	3,07	3,18	3,32	3,32	3,45	3,45	3,81	3,63
	A,P	W/W	3,09	3,20	3,59	3,33	3,46	3,50	3,74	3,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)										
Efficiency energy class	°		A+	A+	A+	A+	A+	A+	A++	A++
	A,P		A+	A+	A+	A+	A+	A+	A++	A+
Pdesignh	°	kW	7	9	11	13	14	16	26	32
	A,P	kW	7	9	11	13	14	15	25	30
ηsh	°	%	132,00	133,00	137,00	136,00	141,00	133,00	153,00	153,00
	A,P	%	135,00	137,00	140,00	138,00	143,00	135,00	150,00	145,00
SCOP	°	W/W	3,38	3,40	3,50	3,48	3,60	3,40	3,90	3,90
	A,P	W/W	3,45	3,50	3,58	3,53	3,65	3,45	3,83	3,70

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for low temperature applications (35 °C)

Energy index ANK - 230V

Size			020	030	040	045
Power supply: M						
SEER - 12/7 (EN14825: 2018) (1)						
Seasonal efficiency	°	%	119,60	124,10	127,80	139,00
	A,P	%	121,10	125,00	130,70	138,40
SEER	°	W/W	3,07	3,18	3,27	3,55
	A,P	W/W	3,10	3,20	3,34	3,54
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)						
Efficiency energy class	°,A,P		A+	A+	A+	A+
Pdesignh	°,A,P	kW	7	9	10	12
ηsh	°	%	130,00	133,00	134,00	139,00
	A,P	%	133,00	137,00	137,00	141,00
SCOP	°	W/W	3,33	3,40	3,43	3,55
	A,P	W/W	3,40	3,50	3,50	3,60

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			020	030	040	045	050	085	100	150
Power supply: °										
Electric data										
Maximum current (FLA)	°	A	6,0	8,0	9,0	11,0	12,0	12,0	22,0	26,0
	A,P	A	6,8	8,4	9,8	11,9	13,1	13,6	23,6	28,9
Peak current (LRA)	°	A	40,0	40,0	54,0	61,0	71,0	91,0	73,0	105,0
	A,P	A	40,4	41,0	55,0	62,6	72,6	92,6	74,6	107,8
Peak current with Soft-start	°,A,P	A	-	-	-	-	-	-	-	-

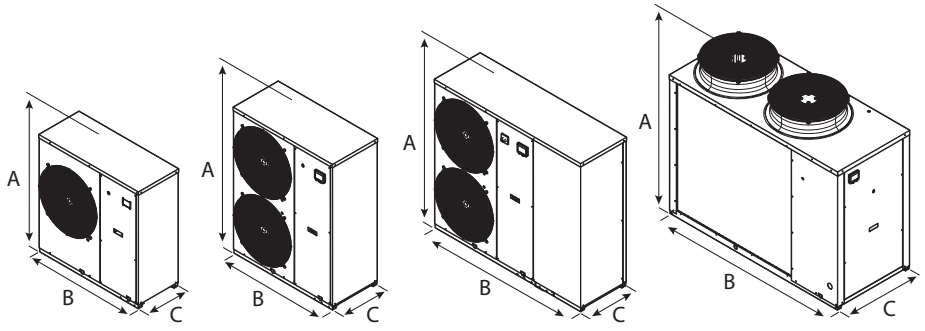
Size			020	030	040	045	050	085	100	150
Power supply: M										
Electric data										
Maximum current (FLA)	°	A	14,0	19,0	22,0	25,0	-	-	-	-
	A	A	14,6	20,1	22,9	26,3	-	-	-	-
	P	A	14,6	20,1	22,9	26,3	-	-	-	-
Peak current (LRA)	°,P	A	-	-	-	-	-	-	-	-
	A	A	-	-	-	-	-	-	-	-
Peak current with Soft-start	°	A	45,0	45,0	45,0	45,0	-	-	-	-
	A	A	45,7	45,7	45,7	46,3	-	-	-	-
	P	A	45,7	45,7	45,7	46,3	-	-	-	-

GENERAL TECHNICAL DATA

Size			020	030	040	045	050	085	100	150
Compressor										
Type	°,A,P	type				Scroll				
Compressor regulation	°,A,P	Type				On-off				
Number	°,A,P	no.	1	1	1	1	1	1	2	2
Circuits	°,A,P	no.	1	1	1	1	1	1	1	1
Refrigerant	°,A,P	type				R410A				
Refrigerant charge (1)	°,A,P	kg	2,9	4,3	4,3	5,5	6,0	6,0	12,0	12,6
System side heat exchanger										
Type	°,A,P	type				Brazed plate				
Number	°,A,P	no.	1	1	1	1	1	1	1	1
Hydraulic connections										
Connections (in/out)	°,A,P	Type				Gas - F				
Size (in)	°,A,P	Ø				1"¼				
Size (out)	°,A,P	Ø				1"¼				
Fan										
Type	°,A,P	type				Axial				
Fan motor	°,A,P	type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous
Number	°,A,P	no.	1	1	2	2	2	2	2	2
Air flow rate	°,A,P	m^3/h	3500	8000	8000	7500	7500	7500	14500	14500
Sound data calculated in cooling mode (2)										
Sound power level	°,A,P	dB(A)	68,0	70,5	70,5	70,5	70,5	70,5	77,0	78,0
Sound pressure level (10 m)	°,A,P	dB(A)	36,7	39,2	39,1	39,1	39,1	39,1	72,6	73,6

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



ANK H-HP **ANK HA** **ANK 100-150 H-HP-HA**

Size			020	030	040	045	050	085	100	150
Dimensions and weights										
A	°,A,P	mm	1028	1281	1281	1281	1281	1281	1450	1450
B	°,P	mm	1000	1000	1000	1000	1000	1000	1750	1750
	A	mm	1358	1450	1450	1450	1450	1450	1750	1750
C	°,A,P	mm	400	400	450	450	450	450	750	750
Empty weight	°	kg	118	149	152	165	172	174	296	341
	A	kg	160	211	214	232	238	241	364	412
	P	kg	123	154	157	175	182	184	314	362

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SWP

High-temperature air-water heat pump for DHW production

- **Production of hot water up to 60°C (70°C with the electric heater)**
- **Operation with suction air from 8°C to 35°C (extended to -15°C to 45°C with the electric heater)**
- **Versions with standard storage tank or with 1 or 2 coils to be used in combination with several additional sources**

DESCRIPTION

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation.
Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

FEATURES

— Steel tank with a double vitrification.
— Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
— Auxiliary coil to be used together with a boiler or solar panels
— Integrated NTC sensor to control the water temperature
— External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
— Anti-corrosion magnesium anode
— Hydraulic connections located at rear of unit
— Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
— Adjustable support feet
— Gas R134a
— Electric heater 1500 W 230V
— High pressure safety devices
— Rotary compressor
— Radial fan with an adjustment of 40 % of the nominal flow rate

Electronic controller:
— water set point adjustment
— external air temperature sensing
— auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
— record of run hours
— control of minimum time between successive compressor starts
— setting of parameters from the keyboard
— control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
— periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing
— user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

VERSIONS

SWP301: Standard where the heat pump and the electric heater are the source of heat.
SWP 301S1: With auxiliary coil to be used together with a boiler or solar panels.
SWP301S2: With double auxiliary coils for simultaneous use of three heat sources.

ACCESSORIES

SWPTA: Titanium electronic sacrificial anode.

ACCESSORIES COMPATIBILITY

Accessory	SWP301	SWP301S1	SWP301S2
SWPTA	•	•	•

PERFORMANCE SPECIFICATIONS

		SWP301	SWP301S1	SWP301S2
Performance in heating mode from 10°C to 54°C (1)				
Heating capacity	W	1950	1950	1950
Electric input power (average)	W	488	488	488
Electric input power (maximum)	W	700	700	700
Input power in standby (Pes)	W	43	43	43
COP (2)	W/W	2,91	2,91	2,91
Heating time	hh:mm	07:22	07:22	07:22

(1) Values measured when heating the water from 10°C to 54°C with 15°C inlet air temperature and 71% relative humidity
(2) Value obtained on the entire L-type withdrawal cycle, at the reference temperature of 54° C (as required by EN 16147)

ELECTRIC DATA

		SWP301	SWP301S1	SWP301S2
Power supply				
Power supply		230V~50Hz	230V~50Hz	230V~50Hz
Electric heater				
Number	no.	1	1	1
Input power	W	1500	1500	1500
Maximum current	A	10,00	10,00	10,00

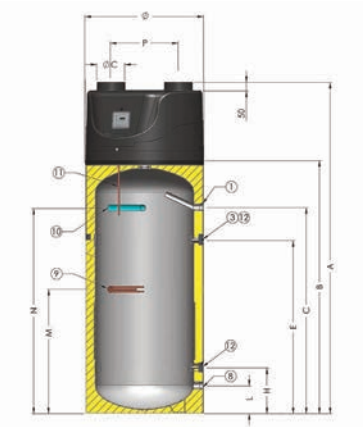
GENERAL TECHNICAL DATA

		SWP301	SWP301S1	SWP301S2
Accumulation inertial				
Storage tank capacity	l	273	268	265
Insulation thickness	mm	50	50	50
Type of corrosion protection	type		Anodo sacrificale in magnesio	
Maximum operating pressure	bar	6	6	6
Maximum working pressure of auxiliary coil (inf./sup.)	bar	10,0	10,0	10,0
Auxiliary serpentine surface (inf./sup.)		-	1,5	1,5/0,6
Capacity required for the coil 80/60 ° C (inf./sup.)		-	1,6	1,6/0,6
Domestic hot water production 80/60 ° C - 10/45 ° C (DIN 4708)		-	0,9	0,9/0,3
Maximum volume of DHW usable at 40 ° C (Vmax)	l	370	370	370
Max DHW temperature with heat pump	°C		60 (55 di fabbrica)	
Fan				
Type	type		Radiale	
Number	no.	1	1	1
Air flow rate	m^3/h	450	450	450
High static pressure	Pa	80	80	80
Sound data				
Sound power level	dB(A)	60,0	60,0	60,0
Sound pressure level (L_pA at 1 metre) (1)	dB(A)	49,0	49,0	49,0

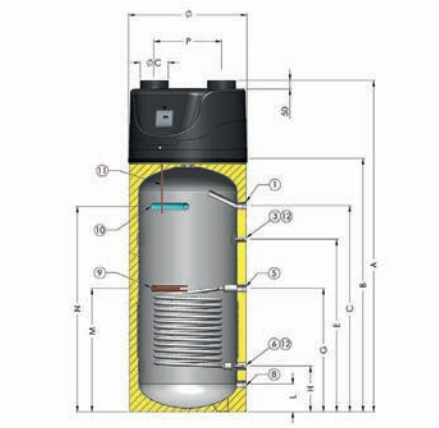
(1) In free field, with non-ducted inlets/outlets

DIMENSIONS

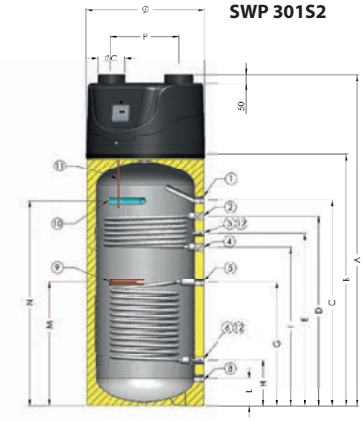
SWP 301



SWP 301S1



SWP 301S2



Key:

1 Hot water withdrawal - Rp 1"
2 Heating delivery - Rp 1"
3 Recirculation - Rp 1/2"
4 Heating return - Rp 1"
5 Solar delivery - Rp 1"
6 Solar return - Rp 1"
7 Condensate drainage - Rp 1/2"
8 Chilled water inlet Rp 1"
9 Electric heater Rp 1" 1/4
10 Anode Rp 1" 1/4
11 Control probe sump L = 700 mm Rp 1/2"
12 Probe sump L = 70 mm, Ø 12 mm

		SWP301	SWP301S1	SWP301S2
Dimensions and weights				
A	mm	1845	1845	1845
B	mm	1410	1410	1410
C	mm	1150	1150	1150
D	mm	-	-	1060
E	mm	965	965	965
F	mm	-	-	890
G	mm	-	690	690
H	mm	-	255	255
I	mm	965	965	965
L	mm	155	155	155
M	mm	690	690	690
N	mm	1145	1145	1145
Ø	mm	660	660	660
Øc	mm	160	160	160
Weight for transport	kg	112,0	127,0	145,0

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MIC

Air-water chiller

Cooling capacity 3 kW

- **Easy and quick to install compact**
- **Separable hydraulic circuit and refrigerant**
- **AISI304 stainless steel tank and pump impeller**
- **R513A refrigerant gas in A1 class with low GWP**

DESCRIPTION

Air-cooled modular refrigerant to produce chilled water, designed and created to satisfy the cooling needs of industrial buildings.
Unit with alternative hermetic compressor and coaxial heat exchanger positioned in a 20-litre AISI304 stainless steel tank.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

FEATURES

Operating field

Operation at full load up to 45 °C external air temperature. Unit can produce chilled water 20 °C up to -10 °C.

Refrigerant circuit

The refrigerant circuit is in the upper part of the machine and can be lifted up to be cleaned, or completely removed if a broken module needs to be replaced, leaving the hydronic part in place to ensure the system works properly.

Hydraulic components

Standard configuration: is fitted as standard
— One differential pressure switch
— An interception tap on the heat exchanger, used to remove the upper part of the machine or to balance the load.
— An AISI304 STAINLESS steel tank
— Connection pipes made of copper
— Brass valves
— 4 STAINLESS steel grooved joints and 2 caps. The water input and output can only be defined in a unit without pumps by the client at the installation stage.

In the configuration with pumps, as well as the components supplied as standard, there is a choice between two pumps with different head.

Modularity

Thanks to its modular construction, the installation can be adapted to suit specific system development needs whilst guaranteeing improved safety and reliability.
As a result, the cooling capacity can be easily increased over time, at a limited cost.
The modules are easy to install and link together from the hydronic point of view, thanks to the connections with grooved joints.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

Modularity

There are 3 solutions for dealing with several modules:

Solution 1: no interconnection between modules
Each module works independently on its own set point.
If it is necessary to switch all the machines on or off, each module must be operated.

Solution 2: through remote ON-OFF contact (Master/Slave)
With this solution, several modules can be connected in parallel and, where necessary, the start-up and switch-off of all modules can be coordinated with a single command.
The electrical panel has a contact for remote ON/OFF, which can be used to connect several modules in parallel, so that the start-up of the first unit (Master) results in the cascade start-up of all subsequent connected units (Slaves).
Each module works independently on its own set point.

Solution 3: via an external supervisor (BMS)
The modules can be controlled with an external supervisor with this solution using a ModBus (accessory) communication module.

ACCESSORIES

ETHERNET-RS485: Gateway to change a Modbus RS485 serial into a TCP-IP serial.
FB_MIC: Air filter to protect the coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
MIC_RUE: Swivel wheels with locking system

MODBUSMICS: This accessory allows you to manage up to multiple units, making available a serial in ModBus RTU protocol on RS485, for supervision with an external BMS.

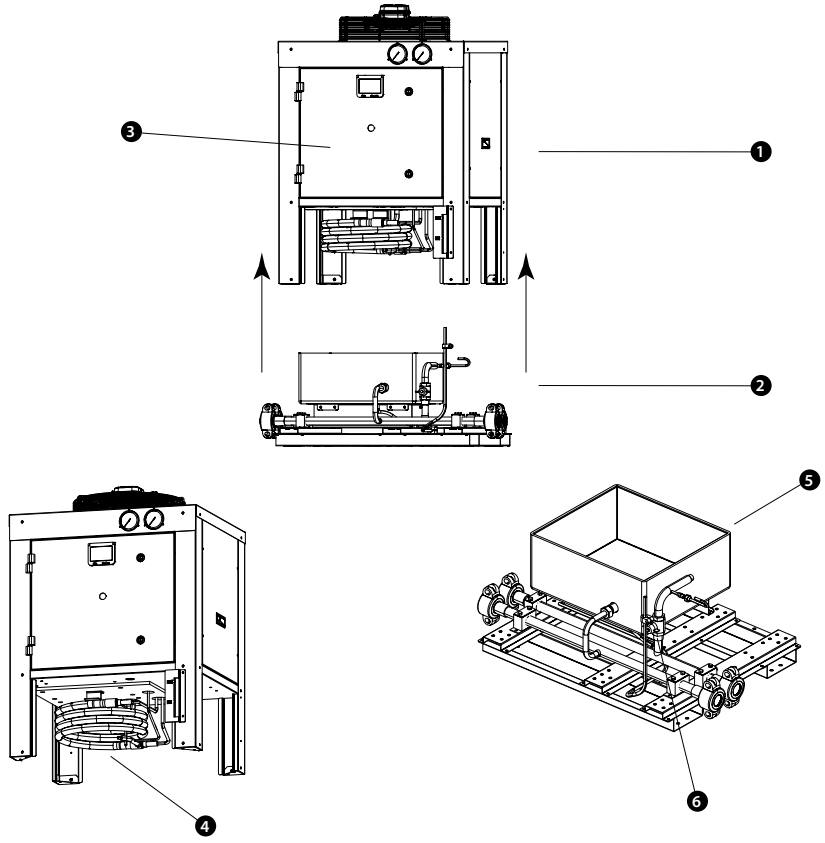
DCPXMICS: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

ACCESSORIES COMPATIBILITY

Accessory	MIC01°	MIC01P1	MIC01P2
ETHERNET-RS485	•	•	•
FB_MIC	•	•	•
MODBUSMICS	•	•	•

Accessory	MIC01°	MIC01P1	MIC01P2
DCPXMICS	•	•	•

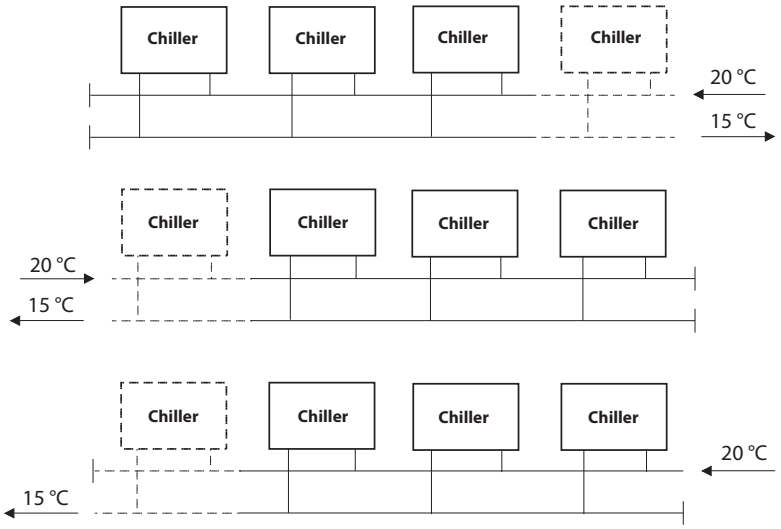
SEPARABLE HYDRAULIC CIRCUIT AND REFRIGERANT

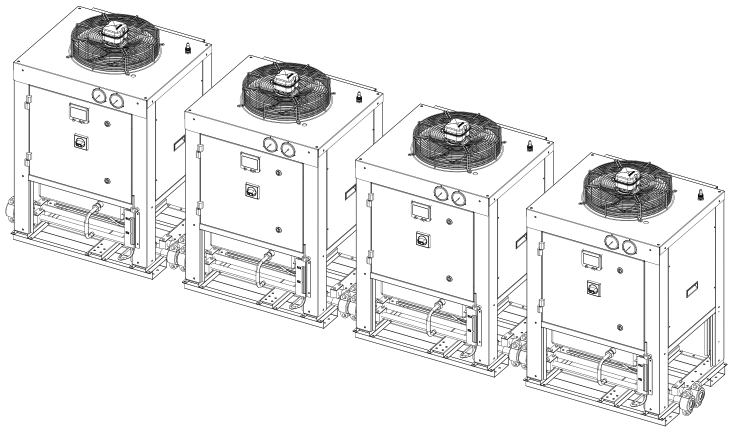


Key:
1 Refrigerant circuit
2 Hydraulic circuit
3 Electric power board
4 Conduit pipe evaporator
5 AISI304 stainless steel tank
6 Shut-off tap

MODULARITY OPTIONS

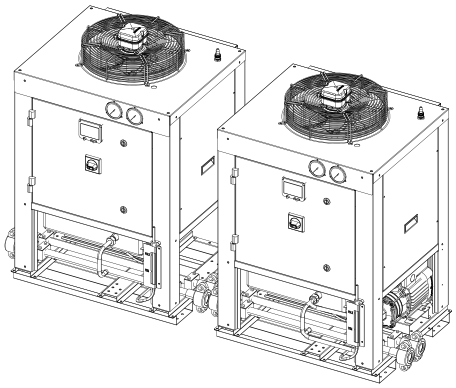
Units without pumps

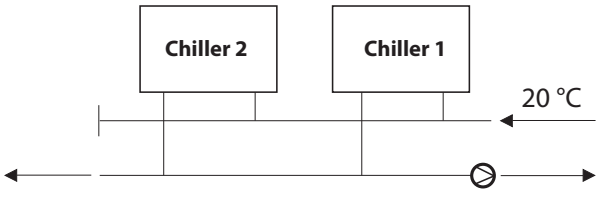




- *Each machine is supplied with 4 grooved joints and two caps (machine input and output defined by the user depending on where the caps are positioned).*

Several units and only one with a pump





- *The chiller with pump needs to be the first in the «chain» and the water entry position is secured.*

CONFIGURATOR

Field	Description
1,2,3	**MIC**
4,5	**Size** 01
6	**Version**
°	Cooling only
7	**Coils**
°	Copper-aluminium
V	Copper pieps-Coated aluminium fins
8	**Fans**
°	Standard
F	Phase cut
9,10	**Integrated hydronic kit**
00	With storage tank without pumps
P1	With storage tank and low head pump
P2	With storage tank and high head pump
11	**Power supply**
M	230V ~ 50Hz (without Schuko plug)
N	230V ~ 50Hz (with Schuko plug)

PERFORMANCE SPECIFICATIONS

		MIC01°	MIC01P1	MIC01P2
Cooling performances 20 °C / 15 °C - (14511:2022) (1)				
Cooling capacity	kW	3,0	2,9	2,9
Input power	kW	1,3	1,5	1,6
Input current	A	5,8	7,7	8,7
EER	W/W	2,31	2,01	1,83
Water flow rate system side	l/h	516	483	469
Pressure drop system side	kPa	10	-	-
Useful head system side	kPa	-	328	529

(1) Data EN 14511:2022; System side water heat exchanger 20 °C / 15 °C;; External air 32 °C

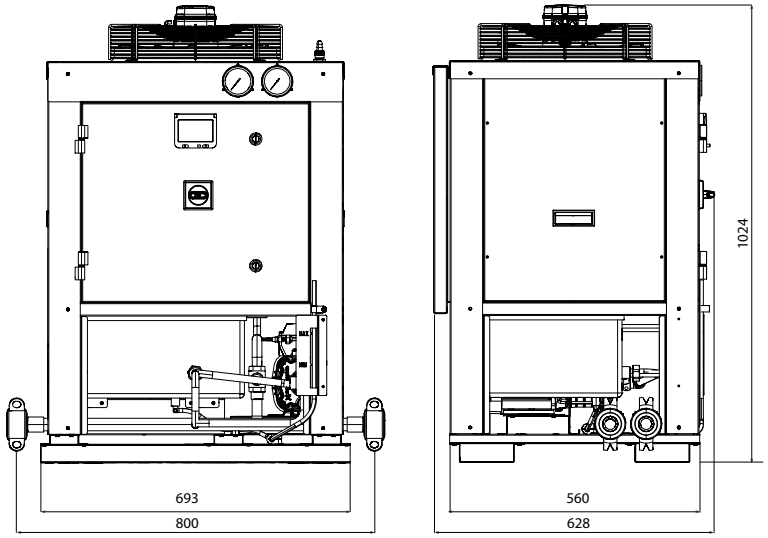
ELECTRIC DATA

		MIC01°	MIC01P1	MIC01P2
Cooling only mode				
Maximum current (FLA)	A	9,0	12,1	13,4
Peak current (LRA)	A	30,0	33,0	34,3

GENERAL TECHNICAL DATA

		MIC01°	MIC01P1	MIC01P2
System side hydraulic connections				
Sizes (in/out)	Ø		1"	
System side heat exchanger				
Type	type		Coassiale	
Number	no.	1	1	1
Water content	l	0,8	0,8	0,8
Minimum water flow rate	l/h	100	100	100
Maximum water flow rate	l/h	1200	1200	1200
Hydronic kit				
Storage tank capacity	l	20	20	20
Fan				
Type	type		Axial	
Fan motor	type		Asynchronous	
Number	no.	1	1	1
Air flow rate	m^3/h	1500	1500	1500
Total fan input power	W	120	120	120
Total fan input current	A	0,4	0,4	0,4

DIMENSIONS



		MIC01°	MIC01P1	MIC01P2
Dimensions and weights				
A	mm	1024	1024	1024
B	mm	628	628	628
C	mm	800	800	800

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

ANL 021-202

Air-water chiller

Cooling capacity 5,7 ÷ 43,3 kW

- **Standard version**
- **Version with Integrated hydronic kit system side**

DESCRIPTION

Chillers for external installation for chilled water production with scroll compressors, axial fans, external copper coils with aluminum louvers from size 020 to 090, microchannel from size 102 to 202.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
N With increased pump
P With pump
Q With storage tank and increased pump

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Double mechanical thermostat

On the configurator it is also possible to select the option **"W"** double mechanical thermostatic valve for low temperatures.
Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ *The option is only available for sizes from 050 to 090 in the °-A-Q versions and from size 102 to 202 in all versions.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the

VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	021	026	031	041	050	070	080	090	102	152	202
AERBAC-MODU	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
AERLINK	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SGD	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SPLW (1)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	050	070	080	090	102	152	202
°,A,P	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52
N	-	-	-	-	-	-	-	-	DCPX52	DCPX52	DCPX52
Q	-	-	-	-	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52

VT: Antivibration

Ver	021	026	031	041	050	070	080	090	102	152	202
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

DRE: Device for peak current reduction

Ver	050	070	080	090	102	152	202
Power supply: °							
°,A,P,Q	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)
N	-	-	-	-	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the plate heat exchanger

Ver	021	026	031	041	050	070	080	090	102	152	202
°,P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A,Q	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N	-	-	-	-	-	-	-	-	KR100	KR100	KR100

A grey background indicates the accessory must be assembled in the factory

RA: electric heater for the buffer tank

Ver	021	026	031	041	050	070	080	090	102	152	202
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

A grey background indicates the accessory must be assembled in the factory

RA: Anti-freeze electric heater for the buffer tank.
KR: Anti-freeze electric heater for the plate heat exchanger.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

CONFIGURATOR

Field		Description
1,2,3		**ANL**
4,5,6		**Size** 021, 026, 031, 041, 050, 070, 080, 090, 102, 152, 202
7		**Model**
	°	Cooling only
8		**Version**
	°	Standard
	A	With storage tank and pump
	N	With increased pump (1)
	P	With pump
	Q	With storage tank and increased pump (2)
9		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
10		**Coils**
	°	Copper-aluminium (4)
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Operating field**
	°	Standard mechanic thermostatic valve (5)
	W	Double mechanical thermostat for low temperature (6)
	Y	Low temperature mechanic thermostatic valve (7)
	Z	Low temperatures mechanic thermostatic valve (8)
12		**Evaporator**
	°	Standard
13		**Power supply**
	°	400V 3N ~ 50Hz (9)
	M	230V ~ 50Hz (10)

(1) Only for ANL 102 ÷ 202 sizes
(2) Only for ANL 050 ÷ 202 sizes
(3) If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. The desuperheater is only available in sizes from 050 to 090 in the version with storage tank "A", and from size 102 to 202 in all versions.
(4) Sizes from 102 to 202 have a micro-channel coil
(5) Water produced up to +4 °C
(6) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 050 to 090 in the °-A-Q versions and from 102 to 202 in all versions
(7) Water produced from 0 °C up to -10 °C
(8) Water produced from +4 °C up to +0 °C
(9) For all sizes
(10) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS

ANL - ° (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,4	16,4	20,4	22,2	26,5	32,9	42,8
Input power	kW	1,9	2,0	2,5	3,3	4,1	4,9	6,4	6,8	8,0	10,2	13,5
Cooling total input current	A	3,7	4,2	4,7	6,2	8,7	9,7	12,0	13,0	16,0	19,0	25,0
EER	W/W	3,03	3,04	2,99	2,90	3,26	3,33	3,18	3,28	3,32	3,21	3,18
Water flow rate system side	l/h	979	1065	1289	1649	2302	2835	3522	3831	4570	5670	7388
Pressure drop system side	kPa	21	21	22	24	30	30	36	50	58	61	68

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	-	-	-	-	-	-	-
Input power	kW	1,9	2,0	2,5	3,3	-	-	-	-	-	-	-
Cooling total input current	A	6,4	7,3	8,2	11,0	-	-	-	-	-	-	-
EER	W/W	3,03	3,04	2,99	2,90	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Pressure drop system side	kPa	21	21	22	24	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - P (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	4,5	5,0	6,6	9,3	10,0	13,0	13,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1289	1649	2302	2835	3522	3831	4570	5670	7388
Useful head system side	kPa	73	73	71	65	76	72	57	52	84	115	90

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	7,9	8,8	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - N (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	-	-	-	-	26,8	33,3	43,3
Input power	kW	-	-	-	-	-	-	-	-	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	-	-	-	-	18,0	21,0	27,0
EER	W/W	-	-	-	-	-	-	-	-	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	-	-	-	-	4570	5669	7387
Useful head system side	kPa	-	-	-	-	-	-	-	-	140	185	159

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - A (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	5,0	5,0	7,0	10,0	11,0	13,0	14,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	73	73	71	65	76	72	57	52	84	115	91

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	7,9	8,8	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - Q (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,6	16,7	20,7	22,5	26,8	33,3	43,3
Input power	kW	-	-	-	-	4,2	5,0	6,5	6,8	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	10,0	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,24	3,33	3,19	3,31	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	-	-	-	-	160	159	144	140	140	185	159

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			021	026	031	041	050	070	080	090	102	152	202
SEER - 12/7 (EN14825:2018) with standard fans (1)													
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	W/W	4,18	4,20	4,17	4,10	4,16	4,34	4,19	4,31	4,11	4,11	4,10
	N	W/W	-	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	W/W	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	%	164,00	164,80	163,60	161,00	163,40	170,70	164,60	169,40	161,30	161,20	161,10
	N	%	-	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	%	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)													
SEER	°	W/W	4,34	4,35	4,31	4,21	4,55	4,68	4,49	4,61	4,83	4,73	4,69
	A,P	W/W	4,49	4,51	4,48	4,47	4,55	4,64	4,57	4,66	4,49	4,25	4,28
	N	W/W	-	-	-	-	-	-	-	-	4,15	4,18	4,23
	Q	W/W	-	-	-	-	4,18	4,44	4,35	4,49	4,15	4,18	4,23
Seasonal efficiency	°	%	170,40	170,90	169,20	165,20	179,10	184,30	176,60	181,50	190,30	186,00	184,70
	A,P	%	176,70	177,50	176,00	175,60	179,00	182,40	179,80	183,50	176,60	167,00	168,00
	N	%	-	-	-	-	-	-	-	-	163,10	164,20	166,00
	Q	%	-	-	-	-	164,30	174,50	171,10	176,70	163,10	164,20	166,00
SEPR - (EN14825: 2018) High temperature with standard fans (3)													
SEPR	°	W/W	5,92	5,92	5,85	5,69	6,36	6,50	6,21	6,43	6,79	6,58	6,49
	A,P	W/W	6,56	6,57	6,45	6,21	6,74	6,90	6,55	6,78	6,68	6,18	6,17
	N	W/W	-	-	-	-	-	-	-	-	5,91	6,09	6,10
	Q	W/W	-	-	-	-	6,03	6,28	6,08	6,30	5,91	6,09	6,10

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			021	026	031	041	050	070	080	090	102	152	202
Power supply: °													
Electric data													
Maximum current (FLA)	°	A	5,0	6,0	6,0	9,0	11,0	14,0	16,0	17,0	22,0	26,0	32,0
	A,P	A	6,0	7,0	7,0	10,0	13,0	15,0	18,0	19,0	23,0	28,0	34,0
	N	A	-	-	-	-	-	-	-	-	24,0	28,0	34,0
	Q	A	-	-	-	-	12,0	14,0	17,0	18,0	24,0	28,0	34,0
Peak current (LRA)	°	A	28,0	38,0	39,0	44,0	65,0	75,0	102,0	96,0	76,0	87,0	117,0
	A,P	A	29,0	39,0	40,0	45,0	67,0	77,0	104,0	98,0	77,0	89,0	119,0
	N	A	-	-	-	-	-	-	-	-	78,0	89,0	119,0
	Q	A	-	-	-	-	66,0	76,0	103,0	97,0	78,0	89,0	119,0

Size			021	026	031	041	050	070	080	090	102	152	202
Power supply: M													
Electric data													
Maximum current (FLA)	°	A	13,0	16,0	18,0	22,0	-	-	-	-	-	-	-
	A,P	A	14,0	17,0	19,0	23,0	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	64,0	68,0	69,0	100,0	-	-	-	-	-	-	-
	A,P	A	62,0	69,0	70,0	101,0	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-

GENERAL TECHNICAL DATA

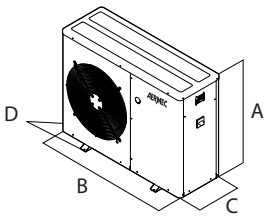
		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202
Compressor												
Type	type	Scroll										
Compressor regulation	Type	On-Off										
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type	R410A										
Refrigerant charge (1)	kg	1,2	1,2	1,2	1,3	2,8	2,8	3,0	3,9	5,9	5,9	5,9
System side heat exchanger												
Type	type	Brazed plate										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections												
Sizes (in/out)	Ø	1"1/4										
Fan												
Type	type	Axial										
Fan motor	type	Asynchronous with phase cut										
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Air flow rate	m^3/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data calculated in cooling mode (2)												

		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0
Sound pressure level (1 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

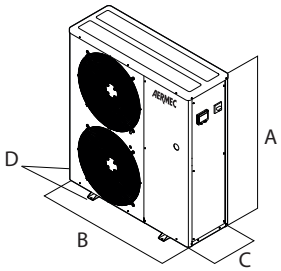
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

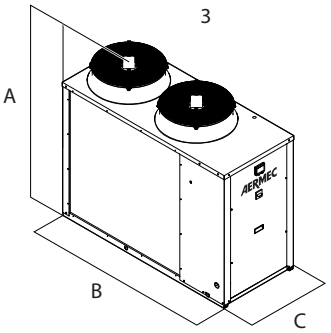
1



2



3



1 ANL 021-041
2 ANL 050-070
3 ANL 102-202

Size			021	026	031	041	050	070	080	090	102	152	202
Dimensions and weights													
A	°,P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°,P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°,P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°,P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	147	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	151	151	151	187	338	364	400

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com

ANL 021H -203H

Reversible air/water heat pump

Cooling capacity 5,7 ÷ 49,1 kW – Heating capacity 6,2 ÷ 43,3 kW

- **It is possible to produce hot domestic water**
- **Compact dimensions**
- **Quick & easy installation**

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
N With increased pump
P With pump
Q With storage tank and increased pump

FEATURES

Operating field

Full load up to 46 ° C ambient air temperature withthe possibility to produce chilled water down to -10° C in cooling mode (for more details refer to the technical documentation).

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Inverter fans

Inverter fans from size 031 to 091 for all sizes.

■ *The DCPX accessory is not required for these sizes.*

Double mechanical thermostat

On the configurator it is also possible to select the option **"W"** double mechanical thermostatic valve for low temperatures.
Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ *The option is available only for sizes starting from 051 to 091 in the °-A-Q versions and from size 103 to 203 in all versions.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BDX: Condensate drip.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RA: Anti-freeze electric heater for the buffer tank.
KR: Anti-freeze electric heater for the plate heat exchanger.
KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	021	026	031	041	051	071	081	091	103	153	203
AERBAC-MODU	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
AERLINK	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SDHW (1)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SGD	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SPLW (2)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL for managing the domestic hot water system.
(2) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,P	DCPX51	DCPX51	-	-	-	-	-	-	DCPX53	DCPX53	DCPX53
Q	-	-	-	-	-	-	-	-	DCPX53	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

Condensate drip

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	-	-	-
A	BDX5	BDX5	BDX5	BDX5	BDX6	BDX6	BDX6	BDX6	-	-	-
Q	-	-	-	-	BDX6	BDX6	BDX6	BDX6	-	-	-

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,P,Q	-	-	-	-	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)
N	-	-	-	-	-	-	-	-	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the heat exchanger

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N,Q	-	-	-	-	-	-	-	-	KR100	KR100	KR100

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

RA: Anti-freeze electric heater for the buffer tank

Ver	021	026	031	041	051	071	081	091	103	153	203
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

A grey background indicates the accessory must be assembled in the factory

KRB: Electric heater for the base

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,N,P,Q	-	-	-	-	-	-	-	-	KRB3 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**ANL**
4,5,6		**Size** 021, 026, 031, 041, 051, 071, 081, 091, 103, 153, 203
7		**Model**
	H	Heat pump
8		**Version**
	°	Standard
	A	With storage tank and pump
	N	With increased pump (1)
	P	With pump
	Q	With storage tank and increased pump (2)
9		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
10		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Operating field**
	°	Standard mechanic thermostatic valve
	W	Double mechanical thermostat for low temperature (4)
12		**Evaporator**
	°	Standard
13		**Power supply**
	°	400V 3N ~ 50Hz (5)
	M	230V ~ 50Hz (6)

(1) Only for ANL 103 ÷ 203 sizes
(2) Only for ANL 051 ÷ 203 sizes
(3) The desuperheater must be intercepted during heating mode. If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, during cold operation, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. It is only available in sizes from 051 to 091 in the version with storage tank "A", and from size 103 to 203 in all versions.
(4) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 051 to 091 in the °-A-Q versions and from 103 to 203 in all versions
(5) Only for ANL 021 ÷ 203 sizes
(6) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (°) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,3	16,3	20,0	21,5	25,5	31,7	40,2
Input power	kW	1,9	2,0	2,5	3,3	4,4	5,9	6,7	6,7	9,2	11,0	14,1
Cooling total input current	A	3,7	4,2	4,7	6,2	8,7	9,7	12,0	13,0	16,0	19,0	25,0
EER	W/W	3,02	3,02	2,98	2,90	3,06	2,77	3,01	3,21	2,79	2,87	2,85
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Pressure drop system side	kPa	30	31	32	30	34	35	44	60	55	57	62
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,4	9,8	13,3	17,4	21,0	22,1	26,2	35,5	42,0
Input power	kW	1,9	2,2	2,7	3,1	4,1	5,2	6,0	6,4	8,8	11,1	12,7
Heating total input current	A	3,8	4,4	5,4	6,8	9,5	10,0	13,0	14,0	17,0	19,0	25,0
COP	W/W	3,21	3,27	3,17	3,22	3,21	3,32	3,49	3,47	2,99	3,21	3,32
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Pressure drop system side	kPa	36	40	41	37	38	39	53	72	70	70	78

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	-	-	-	-	-	-	-
Input power	kW	1,9	2,0	2,5	3,3	-	-	-	-	-	-	-
Cooling total input current	A	6,4	7,3	8,1	11,0	-	-	-	-	-	-	-
EER	W/W	3,02	3,02	2,98	2,90	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Pressure drop system side	kPa	30	31	32	30	-	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,4	9,8	-	-	-	-	-	-	-
Input power	kW	1,9	2,2	2,7	3,1	-	-	-	-	-	-	-
Heating total input current	A	6,6	7,6	9,3	12,0	-	-	-	-	-	-	-
COP	W/W	3,21	3,27	3,17	3,22	-	-	-	-	-	-	-
Water flow rate system side	l/h	1078	1217	1460	1700	-	-	-	-	-	-	-
Pressure drop system side	kPa	36	40	41	37	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (A) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,4	16,4	20,2	21,7	25,8	32,0	40,6
Input power	kW	1,8	2,0	2,5	3,2	4,3	5,8	6,6	6,6	9,2	11,3	14,4
Cooling total input current	A	4,0	4,5	5,0	6,6	9,3	10,0	13,0	13,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,11	2,82	3,06	3,29	2,79	2,83	2,82
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Useful head system side	kPa	73	73	71	65	76	72	57	52	88	125	111
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	13,1	17,2	20,9	21,9	25,9	35,1	41,6
Input power	kW	1,9	2,1	2,6	3,0	4,1	5,2	5,9	6,3	8,9	11,4	13,0
Heating total input current	A	4,1	4,7	5,8	7,2	10,0	11,0	14,0	14,0	18,0	21,0	27,0
COP	W/W	3,23	3,30	3,21	3,25	3,20	3,33	3,51	3,51	2,92	3,08	3,19
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Useful head system side	kPa	68	67	65	58	72	65	46	40	64	94	68

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	6,9	7,9	8,7	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	-	-	-	-	-	-	-
Input power	kW	1,9	2,1	2,6	3,0	-	-	-	-	-	-	-
Heating total input current	A	7,2	8,2	9,9	12,0	-	-	-	-	-	-	-
COP	W/W	3,23	3,30	3,21	3,25	-	-	-	-	-	-	-
Water flow rate system side	l/h	1078	1217	1460	1700	-	-	-	-	-	-	-
Useful head system side	kPa	68	67	65	58	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (P) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,4	16,4	20,2	21,7	25,8	32,0	40,6
Input power	kW	1,8	2,0	2,5	3,2	4,3	5,8	6,6	6,6	9,2	11,3	14,4
Cooling total input current	A	4,0	4,5	5,0	6,6	9,3	10,0	13,0	13,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,11	2,82	3,06	3,29	2,79	2,83	2,82
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Useful head system side	kPa	73	73	71	65	76	72	57	52	88	125	111
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	13,1	17,2	20,9	21,9	25,9	35,1	41,6
Input power	kW	1,9	2,1	2,6	3,0	4,1	5,2	5,9	6,3	8,9	11,4	13,0
Heating total input current	A	4,1	4,7	5,8	7,2	10,0	11,0	14,0	14,0	18,0	21,0	27,0
COP	W/W	3,23	3,30	3,21	3,25	3,20	3,33	3,51	3,51	2,92	3,08	3,19
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Useful head system side	kPa	68	67	65	58	72	65	46	40	64	94	68

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	6,9	7,9	8,7	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1289	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73	73	71	65	-	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	-	-	-	-	-	-	-
Input power	kW	1,9	2,1	2,6	3,0	-	-	-	-	-	-	-
Heating total input current	A	7,2	8,2	9,9	12,0	-	-	-	-	-	-	-
COP	W/W	3,23	3,30	3,21	3,25	-	-	-	-	-	-	-
Water flow rate system side	l/h	1078	1217	1460	1700	-	-	-	-	-	-	-
Useful head system side	kPa	68	67	65	58	-	-	-	-	-	-	-

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (Q) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,5	16,5	20,3	21,8	25,8	32,1	40,6
Input power	kW	-	-	-	-	4,4	5,9	6,7	6,7	9,6	11,4	14,5
Cooling total input current	A	-	-	-	-	9,7	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,05	2,78	3,03	3,25	2,68	2,82	2,81
Water flow rate system side	l/h	-	-	-	-	2294	2807	3452	3713	4398	5467	6929
Useful head system side	kPa	-	-	-	-	160	159	144	140	147	192	170
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	-	-	-	-	13,0	17,1	20,8	21,8	25,9	35,0	41,5
Input power	kW	-	-	-	-	4,2	5,3	6,1	6,4	9,3	11,4	13,0
Heating total input current	A	-	-	-	-	10,0	11,0	14,0	15,0	19,0	21,0	28,0
COP	W/W	-	-	-	-	3,10	3,24	3,42	3,43	2,78	3,07	3,19
Water flow rate system side	l/h	-	-	-	-	2294	3007	3638	3827	4529	6137	7265
Useful head system side	kPa	-	-	-	-	154	151	131	126	107	169	141

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (N) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	-	-	-	-	25,8	32,1	40,6
Input power	kW	-	-	-	-	-	-	-	-	9,6	11,4	14,5
Cooling total input current	A	-	-	-	-	-	-	-	-	18,0	21,0	27,0
EER	W/W	-	-	-	-	-	-	-	-	2,68	2,82	2,81
Water flow rate system side	l/h	-	-	-	-	-	-	-	-	4398	5467	6929
Useful head system side	kPa	-	-	-	-	-	-	-	-	147	192	170
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	-	-	-	-	-	-	-	-	25,9	35,0	41,5
Input power	kW	-	-	-	-	-	-	-	-	9,3	11,4	13,0
Heating total input current	A	-	-	-	-	-	-	-	-	19,0	21,0	28,0
COP	W/W	-	-	-	-	-	-	-	-	2,78	3,07	3,19
Water flow rate system side	l/h	-	-	-	-	-	-	-	-	4529	6137	7265
Useful head system side	kPa	-	-	-	-	-	-	-	-	107	169	141

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANL - (°) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,0	11,6	16,1	19,7	24,2	26,0	30,8	38,3	48,5
Input power	kW	2,0	2,1	2,6	3,4	4,5	6,1	7,0	7,0	9,6	11,6	14,8
Cooling total input current	A	3,8	4,3	4,9	6,4	9,0	10,0	13,0	13,0	16,0	19,0	26,0
EER	W/W	3,50	3,50	3,45	3,36	3,54	3,21	3,47	3,68	3,21	3,31	3,27
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Pressure drop system side	kPa	44	46	47	44	50	52	65	88	81	84	92
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,5	7,3	8,8	10,3	13,8	18,1	21,9	23,1	27,3	37,0	43,9
Input power	kW	1,7	1,9	2,3	2,7	3,5	4,7	5,4	5,7	7,8	9,9	11,3
Heating total input current	A	3,3	3,8	4,6	6,0	8,1	9,1	11,0	12,0	15,0	17,0	22,0
COP	W/W	3,88	3,96	3,85	3,77	3,90	3,89	4,08	4,05	3,49	3,74	3,87
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Pressure drop system side	kPa	39	43	44	40	41	42	57	78	76	76	84

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,0	11,6	-	-	-	-	-	-	-
Input power	kW	2,0	2,1	2,6	3,4	-	-	-	-	-	-	-
Cooling total input current	A	6,6	7,6	8,4	11,0	-	-	-	-	-	-	-
EER	W/W	3,50	3,50	3,45	3,36	-	-	-	-	-	-	-
Water flow rate system side	l/h	1189	1293	1564	2002	-	-	-	-	-	-	-
Pressure drop system side	kPa	44	46	47	44	-	-	-	-	-	-	-
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,5	7,3	8,8	10,3	-	-	-	-	-	-	-
Input power	kW	1,7	1,9	2,3	2,7	-	-	-	-	-	-	-
Heating total input current	A	5,6	6,5	8,0	10,0	-	-	-	-	-	-	-
COP	W/W	3,88	3,96	3,85	3,77	-	-	-	-	-	-	-
Water flow rate system side	l/h	1120	1265	1518	1767	-	-	-	-	-	-	-
Pressure drop system side	kPa	39	43	44	40	-	-	-	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (A) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	16,2	19,8	24,4	26,2	31,1	38,7	48,9
Input power	kW	1,9	2,1	2,6	3,4	4,5	6,0	6,9	6,9	9,7	11,9	15,2
Cooling total input current	A	4,2	4,7	5,2	6,8	9,7	11,0	13,0	14,0	17,0	21,0	28,0
EER	W/W	3,63	3,63	3,58	3,46	3,62	3,28	3,55	3,81	3,21	3,24	3,21
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Useful head system side	kPa	63	63	60	51	60	53	31	24	47	63	41
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	13,7	18,0	21,8	22,9	27,1	36,6	43,4
Input power	kW	1,6	1,8	2,2	2,7	3,5	4,6	5,3	5,6	8,0	10,2	11,7
Heating total input current	A	3,6	4,1	5,0	6,4	8,8	9,8	12,0	13,0	16,0	19,0	24,0
COP	W/W	3,93	4,02	3,91	3,81	3,90	3,91	4,11	4,11	3,40	3,58	3,71
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Useful head system side	kPa	67	64	62	55	69	61	41	34	55	81	53

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	-	-	-	-	-	-	-
Input power	kW	1,9	2,1	2,6	3,4	-	-	-	-	-	-	-
Cooling total input current	A	7,2	8,2	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,63	3,63	3,58	3,46	-	-	-	-	-	-	-
Water flow rate system side	l/h	1189	1293	1564	2002	-	-	-	-	-	-	-
Useful head system side	kPa	63	63	60	51	-	-	-	-	-	-	-
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	-	-	-	-	-	-	-
Input power	kW	1,6	1,8	2,2	2,7	-	-	-	-	-	-	-
Heating total input current	A	6,2	7,1	8,6	11,0	-	-	-	-	-	-	-
COP	W/W	3,93	4,02	3,91	3,81	-	-	-	-	-	-	-
Water flow rate system side	l/h	1120	1265	1518	1767	-	-	-	-	-	-	-
Useful head system side	kPa	67	64	62	55	-	-	-	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (P) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	16,2	19,8	24,4	26,2	31,1	38,7	48,9
Input power	kW	1,9	2,1	2,6	3,4	4,5	6,0	6,9	6,9	9,7	11,9	15,2
Cooling total input current	A	4,2	4,7	5,2	6,8	9,7	11,0	13,0	14,0	17,0	21,0	28,0
EER	W/W	3,63	3,63	3,58	3,46	3,62	3,28	3,55	3,81	3,21	3,24	3,21
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Useful head system side	kPa	63	63	60	51	60	53	31	24	47	63	41
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	13,7	18,0	21,8	22,9	27,1	36,6	43,4
Input power	kW	1,6	1,8	2,2	2,7	3,5	4,6	5,3	5,6	8,0	10,2	11,7
Heating total input current	A	3,6	4,1	5,0	6,4	8,8	9,8	12,0	13,0	16,0	19,0	24,0
COP	W/W	3,93	4,02	3,91	3,81	3,90	3,91	4,11	4,11	3,40	3,58	3,71
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Useful head system side	kPa	67	64	62	55	69	61	41	34	55	81	53

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: M												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	-	-	-	-	-	-	-
Input power	kW	1,9	2,1	2,6	3,4	-	-	-	-	-	-	-
Cooling total input current	A	7,2	8,2	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,63	3,63	3,58	3,46	-	-	-	-	-	-	-
Water flow rate system side	l/h	1189	1293	1564	2002	-	-	-	-	-	-	-
Useful head system side	kPa	63	63	60	51	-	-	-	-	-	-	-
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	-	-	-	-	-	-	-
Input power	kW	1,6	1,8	2,2	2,7	-	-	-	-	-	-	-
Heating total input current	A	6,2	7,1	8,6	11,0	-	-	-	-	-	-	-
COP	W/W	3,93	4,02	3,91	3,81	-	-	-	-	-	-	-
Water flow rate system side	l/h	1120	1265	1518	1767	-	-	-	-	-	-	-
Useful head system side	kPa	67	64	62	55	-	-	-	-	-	-	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (Q) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Power supply: °												
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	-	-	-	-	16,3	19,9	24,5	26,3	31,1	38,7	49,0
Input power	kW	-	-	-	-	4,6	6,2	7,0	7,0	10,2	11,9	15,2
Cooling total input current	A	-	-	-	-	10,0	11,0	14,0	14,0	18,0	22,0	28,0
EER	W/W	-	-	-	-	3,54	3,23	3,51	3,76	3,07	3,25	3,23
Water flow rate system side	l/h	-	-	-	-	2784	3407	4189	4506	5338	6636	8410
Useful head system side	kPa	-	-	-	-	136	135	114	108	79	146	114
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	-	-	-	-	13,6	17,9	21,7	22,8	27,0	36,6	43,4
Input power	kW	-	-	-	-	3,6	4,7	5,4	5,7	8,4	10,2	11,7
Heating total input current	A	-	-	-	-	9,1	10,0	13,0	13,0	17,0	19,0	25,0
COP	W/W	-	-	-	-	3,75	3,79	4,00	4,01	3,22	3,57	3,71
Water flow rate system side	l/h	-	-	-	-	2385	3126	3782	3979	4709	6381	7553
Useful head system side	kPa	-	-	-	-	149	146	125	119	92	159	129

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (N) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz)

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Cooling performance 23 °C / 18 °C (1)													
Cooling capacity		kW	-	-	-	-	-	-	-	-	31,1	38,7	49,0
Input power		kW	-	-	-	-	-	-	-	-	10,2	11,9	15,2
Cooling total input current		A	-	-	-	-	-	-	-	-	18,0	22,0	28,0
EER		W/W	-	-	-	-	-	-	-	-	3,07	3,25	3,23
Water flow rate system side		l/h	-	-	-	-	-	-	-	-	5338	6636	8410
Useful head system side		kPa	-	-	-	-	-	-	-	-	79	146	114
Heating performance 30 °C / 35 °C (2)													
Heating capacity		kW	-	-	-	-	-	-	-	-	27,0	36,6	43,4
Input power		kW	-	-	-	-	-	-	-	-	8,4	10,2	11,7
Heating total input current		A	-	-	-	-	-	-	-	-	17,0	19,0	25,0
COP		W/W	-	-	-	-	-	-	-	-	3,22	3,57	3,71
Water flow rate system side		l/h	-	-	-	-	-	-	-	-	4709	6381	7553
Useful head system side		kPa	-	-	-	-	-	-	-	-	92	159	129

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Cooling capacity with low leaving water temp (UE n° 2016/2281)													
SEER	°	W/W	3,13	3,19	3,28	3,34	3,76	3,49	3,80	3,91	3,58	3,74	3,73
	A,P	W/W	3,29	3,36	3,45	3,50	3,89	3,69	3,99	4,16	3,55	3,53	3,55
	N	W/W	-	-	-	-	-	-	-	-	3,14	3,48	3,53
	Q	W/W	-	-	-	-	3,30	3,24	3,53	3,75	3,14	3,48	3,53
ηsc	°	%	122,00	125,00	128,00	131,00	147,00	137,00	149,00	153,00	140,00	146,00	146,00
	A,P	%	129,00	131,00	135,00	137,00	153,00	145,00	157,00	163,00	139,00	138,00	139,00
	N	%	-	-	-	-	-	-	-	-	123,00	136,00	138,00
	Q	%	-	-	-	-	129,00	127,00	138,00	147,00	123,00	136,00	138,00
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)													
Pdesignh	°	kW	6,00	6,00	8,00	9,00	13,00	16,00	20,00	21,00	25,00	33,00	40,00
	A,P	kW	6,00	6,00	8,00	9,00	12,00	16,00	20,00	21,00	24,00	33,00	39,00
	N	kW	-	-	-	-	-	-	-	-	24,00	33,00	39,00
	Q	kW	-	-	-	-	12,00	16,00	19,00	21,00	24,00	33,00	39,00
SCOP	°	W/W	3,31	3,39	3,33	3,26	3,44	3,43	3,56	3,50	3,53	3,57	3,69
	A	W/W	3,40	3,48	3,41	3,34	3,48	3,48	3,61	3,52	3,45	3,45	3,61
	N	W/W	-	-	-	-	-	-	-	-	3,22	3,35	3,52
	P	W/W	3,40	3,40	3,40	3,35	3,48	3,48	3,60	3,53	3,45	3,45	3,60
	Q	W/W	-	-	-	-	3,22	3,28	3,43	3,39	3,22	3,35	3,52
ηsh	°	%	129,47	132,68	130,12	127,57	134,49	134,10	139,54	137,05	138,02	139,67	144,75
	A	%	133,10	136,35	133,49	130,79	136,32	136,18	141,46	137,92	135,05	134,98	141,49
	N	%	-	-	-	-	-	-	-	-	125,60	131,07	137,69
	P	%	133,00	133,00	133,00	131,00	136,00	136,00	141,00	138,00	135,00	135,00	141,00
	Q	%	-	-	-	-	125,80	128,03	134,25	132,80	125,60	131,07	137,69
Efficiency energy class	°		A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	A,P		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	N		-	-	-	-	-	-	-	-	A+	A+	A+
	Q		-	-	-	-	A+	A+	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Electric data													
Maximum current (FLA)	°	A	7,0	7,0	7,7	9,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	A,P	A	7,7	7,7	8,4	10,4	13,3	15,5	18,3	19,3	23,9	29,1	35,1
	N	A	-	-	-	-	-	-	-	-	26,2	30,2	36,2
	Q	A	-	-	-	-	14,0	13,5	19,0	20,0	26,2	30,2	36,2
Peak current (LRA)	°	A	27,5	33,5	36,7	49,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
	A,P	A	28,2	34,2	37,4	50,4	67,3	75,3	104,3	98,3	77,9	90,1	120,1
	N	A	-	-	-	-	-	-	-	-	80,2	91,2	121,2
	Q	A	-	-	-	-	68,0	75,3	105,0	99,0	80,2	91,2	121,2

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: M													
Electric data													
Maximum current (FLA)	°	A	17,5	17,5	20,7	24,7	-	-	-	-	-	-	-
	A,P	A	18,5	18,5	20,5	25,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
	A,P	A	60,5	63,5	84,5	99,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-

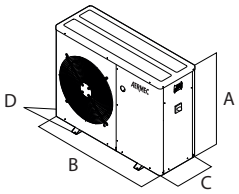
GENERAL TECHNICAL DATA

Size		021	026	031	041	051	071	081	091	103	153	203
Compressor												
Type	type						Scroll					
Compressor regulation	Type						On-Off					
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type						R410A					
Refrigerant charge (1)	kg	1,8	1,8	2,0	2,0	2,9	2,9	3,1	3,9	4,6	5,4	5,7
System side heat exchanger												
Type	type						Brazed plate					
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	Type						Gas - F					
Sizes (in/out)	Ø						1"1/4					
Fan												
Type	type						Axial					
Fan motor	type	Asynchronous	Asynchronous	Asynchronous	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous	Asynchronous
Number	no.	1	1	1	1	1	2	2	2	2	2	2
Air flow rate	m^3/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data calculated in cooling mode (2)												
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0
Sound pressure level (10 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

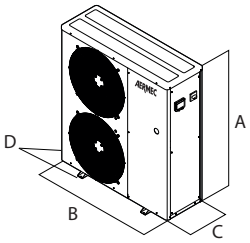
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

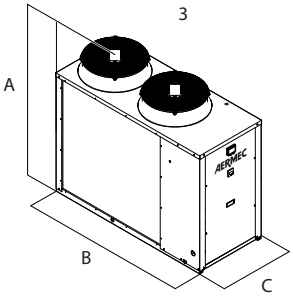
1



2



3



1 ANL 021 - 041
2 ANL 051 - 091
3 ANL 103 - 203

Size			021	026	031	041	051	071	081	091	103	153	203
Dimensions and weights													
A	°,P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°,P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°,P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°,P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	183	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	147	147	183	183	338	364	400

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NRK 0090-0150

Reversible air/water heat pump

Cooling capacity 18,4 ÷ 31,0 kW – Heating capacity 20,8 ÷ 34,4 kW

- **Cooling / heating / high-temperature water production even for DHW production.**
- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimised for heating mode**

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential, commercial complexes or industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° High efficiency

FEATURES

Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components

Water filter,flow switch, low and high pressure transducers as standard supply on all units.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

DCPX as standard

Phase-cut device that regulates the fan speed to ensure optimum unit operation in all conditions.

CONTROL

MODUCONTROL control type.
The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERBAC-MODU: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
BMConverter: The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/

return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

VT: Anti-vibration supports.

BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

Refer to the specific "SAF" datasheet for more information about correct system operation, and about the required or recommended accessories. Please consult the VMF system for the production of DHW with a thermal storage tank not supplied by Aermec.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0090	0100	0150
AERBAC-MODU	°	•	•	•
AERLINK	°	•	•	•
AERNET	°	•	•	•
BMConverter	°	•	•	•
MODU-485BL	°	•	•	•
MULTICONTROL	°	•	•	•
PR3	°	•	•	•
SAF (1)	°	•	•	•
SDHW (2)	°	•	•	•
SGD	°	•	•	•
SPLW (3)	°	•	•	•
VMF-CRP	°	•	•	•

(1) For more information about SAF refer to the dedicated documentation.
(2) Probe required for MULTICONTROL for managing the domestic hot water system.
(3) Probe required for MULTICONTROL to manage the secondary circuit system.

BSKW: Electric heater kit

Model	Ver	0090	0100	0150
BS6KW400T	°	•	•	•
BS9KW400T	°	•	•	•

BS6KW400T (6kW, 400V 3); BS9KW400T (9kW, 400V 3)

VT: Antivibration

Ver	0090	0100	0150
Integrated hydronic kit: 00, 01, 03, P1, P3			
°	VT15	VT15	VT15

DRE: Device for peak current reduction

Ver	0090	0100	0150
°	DRE10 (1)	DRE10 (1)	DRE15 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRK**
4,5,6,7		**Size** 0090, 0100, 0150
8		**Operating field (1)**
	°	Standard mechanic thermostatic valve
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (2)
11		**Version**
	°	High efficiency
12		**Coils**
	°	Alluminium

Field		Description
	R	Copper pipes-copper fins
	S	Tinned copper
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
14		**Power supply**
	°	400V ~ 3N 50Hz
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
	01	Storage tank with low head pump
	03	Storage tank with high head pump
	P1	Single pump low head
	P3	Single pump high head

(1) Water produced up to +4 °C.
(2) The desuperheater can only be used with cold running.

PERFORMANCE SPECIFICATIONS

NRK - (°) / 12/7 °C - 40/45 °C

Size		0090	0100	0150
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	18,4	26,4	31,0
Input power	kW	5,8	8,4	9,8
Cooling total input current	A	13,0	18,0	20,0
EER	W/W	3,19	3,15	3,15
Water flow rate system side	l/h	3172	4546	5338
Pressure drop system side	kPa	19	39	54
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	20,8	28,7	34,4
Input power	kW	6,1	8,3	10,3
Heating total input current	A	14,0	17,0	21,0
COP	W/W	3,40	3,45	3,34
Water flow rate system side	l/h	3601	4965	5953
Pressure drop system side	kPa	24	45	65

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - (°) / 23/18 °C - 30/35 °C

Size		0090	0100	0150
Cooling performance 23 °C / 18 °C (1)				
Cooling capacity	kW	24,5	34,9	40,9
Input power	kW	6,1	9,0	10,6
Cooling total input current	A	14,0	18,0	22,0
EER	W/W	4,03	3,88	3,86
Water flow rate system side	l/h	4236	6040	7093
Pressure drop system side	kPa	34	69	95
Heating performance 30 °C / 35 °C (2)				
Heating capacity	kW	20,4	28,2	33,8
Input power	kW	5,0	6,7	8,3
Heating total input current	A	11,0	14,0	17,0
COP	W/W	4,11	4,22	4,09
Water flow rate system side	l/h	3521	4866	5833
Pressure drop system side	kPa	23	43	-

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0090	0100	0150
Cooling capacity with low leaving water temp (UE n° 2016/2281)					
SEER	°	W/W	3,35	3,39	3,42
ηsc	°	%	131,10	132,60	133,80

Size			0090	0100	0150
Integrated hydronic kit: 00					
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (1)					
Efficiency energy class	°		A+	A+	A+
Pdesignh	°	kW	22,00	28,00	34,00
SCOP	°	W/W	3,03	2,98	2,90
ηsh	°	%	118,00	116,00	113,00
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)					
Efficiency energy class	°		A+	A+	A+
Pdesignh	°	kW	21,00	27,00	32,00
SCOP	°	W/W	3,70	3,68	3,60
ηsh	°	%	145,00	144,00	141,00

(1) Efficiencies for average temperature applications (55 °C)
(2) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

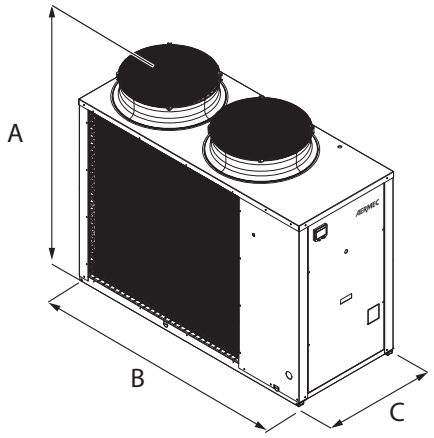
Size			0090	0100	0150
Electric data					
Maximum current (FLA)	°	A	19,1	24,6	29,5
Peak current (LRA)	°	A	104,2	121,2	143,2

GENERAL TECHNICAL DATA

Size			0090	0100	0150
Compressor					
Type	°	type		Scroll	
Compressor regulation	°	Type		On-Off	
Number	°	no.	1	1	1
Circuits	°	no.	1	1	1
Refrigerant	°	type		R410A	
Refrigerant charge (1)	°	kg	13,0	14,0	16,0
System side heat exchanger					
Type	°	type		Brazed plate	
Number	°	no.	1	1	1
Hydraulic connections					
Connections (in/out)	°	Type		Gas-F	
Size (in)	°	Ø		1½"	
Size (out)	°	Ø		1½"	
Fan					
Type	°	type		axials	
Fan motor	°	type		Asynchronous	
Number	°	no.	2	2	2
Air flow rate	°	m^3/h	14200	14200	13700
Sound data calculated in cooling mode (2)					
Sound power level	°	dB(A)	78,0	78,0	78,0
Sound pressure level (10 m)	°	dB(A)	46,5	46,5	46,5

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0090	0100	0150
Dimensions and weights					
A	°	mm	1450	1450	1450
B	°	mm	1750	1750	1750
C	°	mm	750	750	750
Empty weight	°	kg	289	328	372

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NRK 0200-0700

Reversible air/water heat pump

Cooling capacity 35,5 ÷ 148 kW – Heating capacity 42,31 ÷ 175 kW

- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimized for operation in heating mode**
- **Night mode**

DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Components

Water filter,flow switch, low and high pressure transducers as standard supply on all units.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

CONTROL

pCO^5 control type
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN both with VMF-E5 and E6. To facilitate certain management and control operations of the unit, the AERAPP application is available both for Android and iOS systems.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
BMConverter: The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
SGD: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.
PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
AERCALM: The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERBACP	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERLINK	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERNET	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
BMConverter	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
PGD1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
SGD	A					•					
	E	•	•	•	•	•					

GP: anti-intrusion grid

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

VT: Antivibration

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00, P1, P2, P3, P4										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22

DRE: Device for peak current reduction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)
E	DRE201 (1)	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61
E	RIF55	RIF56	RIF54	RIF57	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61

A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	T6NRK1	T6NRK2	T6NRK3	T6NRK3	T6NRK3	T6NRK3
E	T6NRK1	T6NRK1	T6NRK1	T6NRK1	T6NRK1	T6NRK2	T6NRK3	T6NRK3	T6NRK3	T6NRK3

A grey background indicates the accessory must be assembled in the factory

PRM1: Manually reset pressure switch

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1
E	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1

A grey background indicates the accessory must be assembled in the factory

7", touch screen keyboard

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

Clean contact for controlling a boiler.

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AERCALM	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

CONFIGURATOR

Field	Description
1,2,3	**NRK**
4,5,6,7	**Size** 0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8	**Operating field (1)**
°	Standard mechanic thermostatic valve
9	**Model**
H	Heat pump
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
13	**Fans**
°	Standard (3)
J	Inverter (4)
M	Oversized (5)
14	**Power supply**
°	400V 3N ~ 50Hz
15,16	**Integrated hydronic kit**
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
05	Storage tank with holes for heaters and single low head pump (6)
06	Storage tank with holes for heaters and pump low head + stand-by pump (6)
07	Storage tank with holes for heaters and single high head pump (6)
08	Storage tank with holes for heaters and pump high head + stand-by pump (6)
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C
(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) As standard in sizes fom 0350÷0700.
(4) Standard for size 0200÷0330, without useful static pressure. Option for size 0350÷0700 with useful static pressure.
(5) Option available only for size 0200÷0330.
(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

NRK - A / 12/7 °C - 40/45 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	75,4	88,8	101,6	117,4	133,4	148,1
Input power	kW	-	-	-	-	25,4	29,5	34,4	41,0	45,0	52,6
Cooling total input current	A	-	-	-	-	55,0	61,0	66,0	72,0	87,0	107,0
EER	W/W	-	-	-	-	2,97	3,01	2,95	2,86	2,97	2,82
Water flow rate system side	l/h	-	-	-	-	12983	15278	17488	20211	22975	25516
Pressure drop system side	kPa	-	-	-	-	23	26	32	28	34	42
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	-	-	-	-	25,5	30,2	34,7	39,9	45,6	51,7
Heating total input current	A	-	-	-	-	54,0	59,0	64,0	70,0	85,0	106,0
COP	W/W	-	-	-	-	3,45	3,44	3,42	3,42	3,41	3,37
Water flow rate system side	l/h	-	-	-	-	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	-	-	-	-	32	36	44	37	45	57

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - E / 12/7 °C - 40/45 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	35,6	50,4	59,5	66,1	74,4	87,4	99,8	114,5	130,8	145,3
Input power	kW	11,7	17,4	19,5	22,3	27,6	32,4	38,1	45,8	49,5	58,1
Cooling total input current	A	28,0	38,0	42,0	49,0	60,0	67,0	73,0	72,0	95,0	119,0
EER	W/W	3,05	2,90	3,05	2,96	2,69	2,70	2,62	2,50	2,64	2,50
Water flow rate system side	l/h	6131	8670	10235	11379	12801	15035	17175	19713	22512	25033
Pressure drop system side	kPa	18	17	23	19	22	25	30	27	32	41
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	42,2	59,7	69,4	78,2	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	12,0	17,0	19,9	22,4	25,5	30,2	34,7	39,9	45,6	51,7
COP	W/W	3,50	3,50	3,49	3,49	3,45	3,44	3,42	3,42	3,41	3,37
Heating total input current	A	24,0	34,0	38,0	44,0	54,0	59,0	64,0	70,0	85,0	106,0
Water flow rate system side	l/h	7318	10355	12032	13569	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	24	22	30	25	32	36	44	37	45	57

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

NRK - A / 23/18 °C - 30/35 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	-	-	-	-	93,2	108,2	122,7	143,0	165,0	181,0
Input power	kW	-	-	-	-	26,4	30,7	35,9	43,3	47,0	55,1
Cooling total input current	A	-	-	-	-	57,0	63,0	69,0	75,0	90,0	112,0
EER	W/W	-	-	-	-	3,54	3,53	3,42	3,30	3,51	3,28
Water flow rate system side	l/h	-	-	-	-	16111	18705	21231	24719	28513	31266
Pressure drop system side	kPa	-	-	-	-	35	39	47	42	52	63
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	-	-	-	-	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	-	-	-	-	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	-	-	-	-	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	-	-	-	-	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	-	-	-	-	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	-	-	-	-	31	34	41	35	42	54

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRK - E / 23/18 °C - 30/35 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	44,2	61,5	72,1	80,9	91,9	106,5	120,6	139,5	161,7	177,5
Input power	kW	12,2	18,2	20,4	23,5	28,7	33,6	39,7	48,3	51,7	60,8
Cooling total input current	A	29,0	40,0	44,0	51,0	62,0	69,0	76,0	75,0	99,0	124,0
EER	W/W	3,64	3,37	3,53	3,44	3,20	3,16	3,04	2,89	3,13	2,92
Water flow rate system side	l/h	7643	10631	12470	13977	15886	18408	20850	24110	27939	30673
Pressure drop system side	kPa	28	26	34	29	34	37	44	40	49	62
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	41,4	57,2	67,2	75,7	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	9,4	13,3	15,8	18,1	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	19,0	26,0	30,0	35,0	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	4,41	4,31	4,26	4,18	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	7156	9895	11628	13083	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	23	20	28	23	31	34	41	35	42	54

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	75,0	85,0	94,0	114,0	144,0	147,0
	E	A	40,0	49,0	61,0	74,0	75,0	85,0	94,0	114,0	144,0	147,0
Peak current (LRA)	A	A	-	-	-	-	216,0	226,0	191,0	228,0	285,0	288,0
	E	A	124,0	146,0	175,0	215,0	216,0	226,0	191,0	228,0	285,0	288,0

ENERGY DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	A	W/W	-	-	-	-	3,45	3,52	3,46	3,42	3,44	3,33
	E	W/W	3,40	3,30	3,48	3,39	3,35	3,42	3,34	3,29	3,35	3,27
ηsc	A	%	-	-	-	-	134,80	137,60	135,20	133,70	134,60	130,00
	E	%	133,00	128,80	136,10	132,50	130,90	133,70	130,60	128,70	130,90	127,90

Size			0200	0280	0300
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)					
Efficiency energy class	A		-	-	-
	E		A++	A+	A+
Pdesignh	A	kW	-	-	-
	E	kW	42,00	58,00	67,00
SCOP	A	W/W	-	-	-
	E	W/W	3,88	3,75	3,70
ηsh	A	%	-	-	-
	E	%	152,00	147,00	145,00
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)					
Efficiency energy class	A		-	-	-
	E		A+	A+	A+
Pdesignh	A	kW	-	-	-
	E	kW	44,00	62,00	70,00
SCOP	A	W/W	-	-	-
	E	W/W	3,08	3,03	3,00
ηsh	A	%	-	-	-
	E	%	120,00	118,00	117,00

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Size			0330	0350	0500	0550	0600	0650	0700
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)									
Pdesignh	A	kW	-	89,00	106,00	121,00	137,00	157,00	178,00
	E	kW	80,00	89,00	106,00	121,00	137,00	157,00	178,00
SCOP	A	W/W	-	2,88	2,90	3,03	3,03	2,93	2,90
	E	W/W	3,03	2,88	2,90	3,03	3,03	2,93	2,90
ηsh	A	%	-	112,00	113,00	118,00	118,00	114,00	113,00
	E	%	118,00	112,00	113,00	118,00	118,00	114,00	113,00
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (2)									
Pdesignh	A	kW	-	84,00	99,00	113,00	131,00	149,00	168,00
	E	kW	75,00	84,00	99,00	113,00	131,00	149,00	168,00
SCOP	A	W/W	-	3,43	3,40	3,70	3,70	3,38	3,33
	E	W/W	3,68	3,43	3,40	3,70	3,70	3,38	3,33
ηsh	A	%	-	134,00	133,00	145,00	145,00	132,00	130,00
	E	%	144,00	134,00	133,00	145,00	145,00	132,00	130,00

(1) Efficiencies for average temperature applications (55 °C)
(2) Efficiencies for low temperature applications (35 °C)

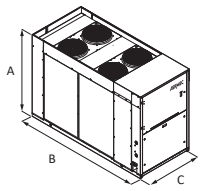
GENERAL TECHNICAL DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Compressor												
Type	A,E	type					Scroll					
Compressor regulation	A,E	Type					On-Off					
Number	A,E	no.	2	2	2	2	2	3	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type					R410A					
Refrigerant charge (1)	A	kg	-	-	-	-	23,0	28,0	29,0	29,0	39,0	40,0
	E	kg	14,0	16,0	16,0	16,0	23,0	28,0	29,0	29,0	39,0	40,0
System side heat exchanger												
Type	A,E	type					Brazed plate					
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E	Type					Grooved joints					
Sizes (in/out)	A,E	Ø					2½"					
Fan												
Type	A,E	type					axials					
Number	A	no.	-	-	-	-	2	2	2	2	3	3
	E	no.	4	6	8	8	2	2	2	2	3	3
Air flow rate	A	m^3/h	-	-	-	-	37000	36500	36500	36500	58000	58000
	E	m^3/h	14000	20000	26000	26000	21100	21400	22400	22400	31900	31900
Sound data calculated in cooling mode (2)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	85,0
	E	dB(A)	74,0	74,0	75,0	75,0	74,0	74,0	74,0	75,0	77,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	53,0	53,0
	E	dB(A)	42,3	42,3	43,2	43,2	42,1	42,1	42,1	43,1	45,0	45,0

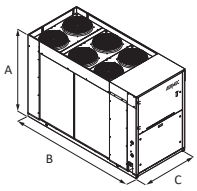
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

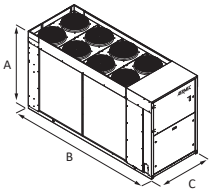
NRK 0200



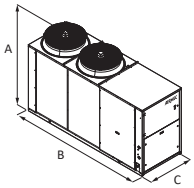
NRK 0280



NRK 0300-0330



NRK 0350-0500-0550-0600



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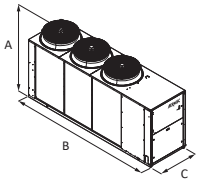

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1875
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
B	A	mm	-	-	-	-	3330	3330	3330	3330	4330	4330
	E	mm	2700	2700	3200	3200	3330	3330	3330	3330	4330	4330
C	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Dimensions and weights for transport												
A	A	mm	-	-	-	-	2027	2027	2027	2027	2039	2039
	E	mm	1735	1735	1758	1758	2027	2027	2027	2027	2039	2039
B	A	mm	-	-	-	-	3395	3395	3395	3395	4387	4387
	E	mm	2760	2760	3260	3260	3395	3395	3395	3395	4387	4387
C	A	mm	-	-	-	-	1170	1170	1170	1170	1170	1170
	E	mm	1160	1160	1160	1160	1170	1170	1170	1170	1170	1170

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	-	-	-	-	1067	1213	1274	1316	1495	1530
	E	kg	761	833	913	920	1067	1213	1274	1316	1495	1530

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